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Social Values and Attitudes Surrounding New Reproductive Technologies

Research Studies of the Royal Commission on New Reproductive Technologies





Volume 2 of the Research Studies

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Consistent with the Commission's commitment to full equality between men and women, care has been taken throughout this volume to use gender-neutral language wherever possible.



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RCNRT Staff

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Preface from the Chairperson



As Canadians living in the last decade of the twentieth century, we face unprecedented choices about procreation. Our responses to those choices — as individuals and as a society — say much about what we value and what our priorities are. Some technologies, such as those for assisted reproduction, are unlikely to become a common means of having a family — although the number of children born as a result of these techniques is greater than the number of infants placed for adoption in Canada. Others, such as ultrasound during pregnancy, are already generally accepted, and half of all pregnant women aged 35 and over undergo prenatal diagnostic procedures. Still other technologies, such as fetal tissue research, have little to do with reproduction as such, but may be of benefit to people suffering from diseases such as Parkinson's; they raise important ethical issues in the use and handling of reproductive tissues.

It is clear that opportunities for technological intervention raise issues that affect all of society; in addition, access to the technologies depends on the existence of public structures and policies to provide them. The values and priorities of society, as expressed through its institutions, laws, and funding arrangements, will affect individual options and choices.

As Canadians became more aware of these technologies throughout the 1980s, there was a growing awareness that there was an unacceptably large gap between the rapid pace of technological change and the policy development needed to guide decisions about whether and how to use such powerful technologies. There was also a realization of how little reliable information was available to make the needed policy decisions. In addition, many of the attitudes and assumptions underlying the way in which technologies were being developed and made available did not reflect the profound changes that have been transforming Canada in recent decades. Individual cases were being dealt with in isolation, and often in the absence of informed social consensus. At the same time, Canadians were looking

more critically at the role of science and technology in their lives in general, becoming more aware of their limited capacity to solve society's problems.

These concerns came together in the creation of the Royal Commission on New Reproductive Technologies. The Commission was established by the federal government in October 1989, with a wide-ranging and complex mandate. It is important to understand that the Commission was asked to consider the technologies' impact not only on society, but also on specific groups in society, particularly women and children. It was asked to consider not only the technologies' scientific and medical aspects, but also their ethical, legal, social, economic, and health implications. Its mandate was extensive, as it was directed to examine not only current developments in the area of new reproductive technologies, but also potential ones; not only techniques related to assisted conception, but also those of prenatal diagnosis; not only the condition of infertility, but also its causes and prevention; not only applications of technology, but also research, particularly embryo and fetal tissue research.

The appointment of a Royal Commission provided an opportunity to collect much-needed information, to foster public awareness and public debate, and to provide a principled framework for Canadian public policy on the use or restriction of these technologies.

The Commission set three broad goals for its work: to provide direction for public policy by making sound, practical, and principled recommendations; to leave a legacy of increased knowledge to benefit Canadian and international experience with new reproductive technologies; and to enhance public awareness and understanding of the issues surrounding new reproductive technologies to facilitate public participation in determining the future of the technologies and their place in Canadian society.

To fulfil these goals, the Commission held extensive public consultations, including private sessions for people with personal experiences of the technologies that they did not want to discuss in a public forum, and it developed an interdisciplinary research program to ensure that its recommendations would be informed by rigorous and wide-ranging research. In fact, the Commission published some of that research in advance of the Final Report to assist those working in the field of reproductive health and new reproductive technologies and to help inform the public.

The results of the research program are presented in these volumes. In all, the Commission developed and gathered an enormous body of information and analysis on which to base its recommendations, much of it available in Canada for the first time. This solid base of research findings helped to clarify the issues and produce practical and useful recommendations based on reliable data about the reality of the situation, not on speculation.

The Commission sought the involvement of the most qualified researchers to help develop its research projects. In total, more than 300

scholars and academics representing more than 70 disciplines — including the social sciences, humanities, medicine, genetics, life sciences, law, ethics, philosophy, and theology — at some 21 Canadian universities and 13 hospitals, clinics, and other institutions were involved in the research program.

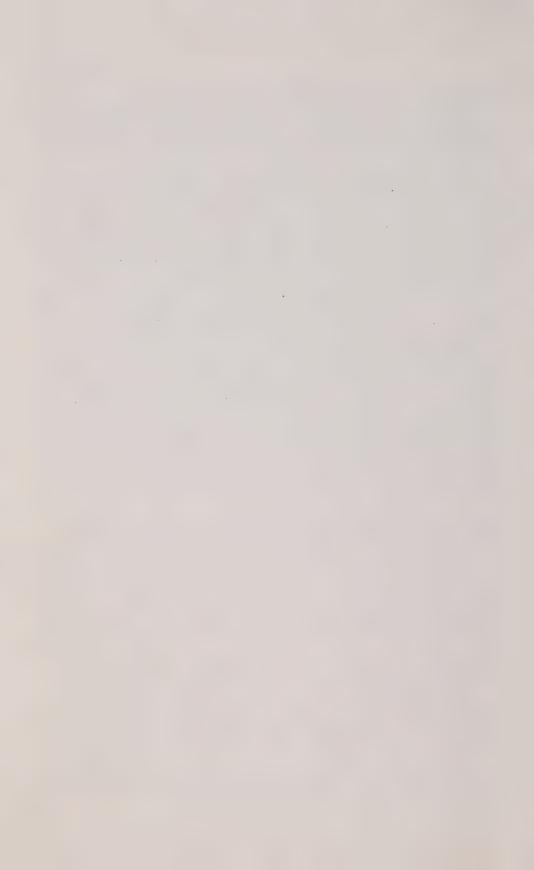
The Commission was committed to a research process with high standards and a protocol that included internal and external peer review for content and methodology, first at the design stage and later at the report stage. Authors were asked to respond to these reviews, and the process resulted in the achievement of a high standard of work. The protocol was completed before the publication of the studies in this series of research volumes. Researchers using human subjects were required to comply with appropriate ethical review standards.

These volumes of research studies reflect the Commission's wide mandate. We believe the findings and analysis contained in these volumes will be useful for many people, both in this country and elsewhere.

Along with the other Commissioners, I would like to take this opportunity to extend my appreciation and thanks to the researchers and external reviewers who have given tremendous amounts of time and thought to the Commission. I would also like to acknowledge the entire Commission staff for their hard work, dedication, and commitment over the life of the Commission. Finally, I would like to thank the more than 40 000 Canadians who were involved in the many facets of the Commission's work. Their contribution has been invaluable.

Patricia a. Baird

Patricia Baird, M.D., C.M., FRCPC, F.C.C.M.G.



Introduction



From the beginning, the Royal Commission on New Reproductive Technologies was committed to learning about and understanding the social values and attitudes of Canadians. Commissioners felt that these values and attitudes, which are not static but evolve over time, provide a vital context for decision making about the technologies and must be considered in recommendations of policy in this area.

The first of the three considerations that Commissioners always had in mind when making their recommendations was the ethical framework described in Volume 1 of this series of research studies, an ethic of care interpreted through eight guiding principles. The third consideration — that medical practice should be evidence-based — is discussed in Volume 11 in the context of the safety and effectiveness of infertility treatments. The present volume focusses on the second consideration and describes the Commission's research and findings concerning the values and attitudes of Canadians.

Many hundreds of people assisted the Commission directly in its work, through public hearings, private sessions, panel discussions, written submissions, 1-800 lines, and letters of opinion. Their contributions were invaluable, providing the Commission with a spectrum of views on the complex issues associated with new reproductive technologies. What all these people had in common, however, was that they held views strong enough that they chose to approach the Commission.

The majority of the studies in this volume are an attempt to understand the views and attitudes of the larger population of all Canadians. The surveys and studies were aimed at understanding not only representative samples of the Canadian population as a whole, but also specific groups within Canadian society — Aboriginal communities, people with disabilities, racial minorities and ethnocultural communities, and religious groups. Most of the studies are quantitative in nature. They

provide an overview of Canadians' beliefs and opinions in areas directly related to the Commission's mandate, such as assisted reproductive technologies and prenatal diagnosis, and also in broader areas such as the place of the family in our society. The findings shed some light on the social context within which individuals' submissions to the Commission were made.

Three national surveys were conducted on behalf of the Commission at different points in its mandate. The aims were different in each case, and, therefore, the methodologies used and the questions asked also differed. We found, however, a significant degree of convergence in the responses regarding certain issues or technologies, pointing to the existence of some consensus among Canadians about how we as a society should be dealing with these issues or technologies. An overview of these surveys begins this volume, followed by the detailed results of the surveys themselves and of the focus groups that were held as a preliminary to help determine the parameters of one of the surveys.

The focus group report is particularly interesting in that it was specifically designed to include input from Aboriginal, racial minority, and disabled persons. The report made it evident to the Commission that a special, more focussed survey of ethnocultural associations would be useful, and this survey provided a valuable addition to the Commission's understanding of the specific views of members of Canada's various ethnocultural communities on the issues associated with new reproductive technologies. The survey of religious communities described in this volume also added to the Commission's understanding of how religions other than Christianity view new reproductive technologies. The volume concludes with a report on the sessions held to give those people who have personally experienced various new reproductive technologies the opportunity to talk to the Commission in a private setting.

The findings of the surveys and other studies in this volume provide a fascinating picture of the interaction between rapid changes in society and equally rapid changes in technology. It is clear that both of these trends will have a strong impact on how individual Canadians will make decisions about reproduction and how they will expect their institutions—medical, legal, and social—to respond to the challenges posed by new reproductive technologies.

It was the Commission's view that the values and attitudes of Canadians are important in helping to decide the boundaries that need to be put around new reproductive technologies to ensure that unethical practices are prohibited. It is apparent in the discussion of individual technologies and practices in the Commission's Final Report that the views expressed in the surveys presented in this volume, and in the briefs, submissions, and letters presented to the Commission directly, were vital in informing Commissioners. However, the legitimacy of public policy is a function of consistency not only with the values and attitudes of a broad range of Canadians, but also with constitutionally entrenched values.

The trends and themes that emerge from this volume have implications for all the institutions that are involved in providing new reproductive technologies or regulating their consequences. The Commission found that Canadians are committed to the health care system as an important expression of what is valuable and unique about living in Canada. It is also clear that the ideals of the *Canadian Charter of Rights and Freedoms* are important to Canadians as an expression of the society they would like to live in. The Commission found that Canada is becoming an increasingly diverse society, and the legitimate interests of many groups and individuals must be recognized and supported. All these factors contribute to the broad social context within which decisions about new reproductive technologies must be made.





An Overview of Findings in This Volume

RCNRT Staff



The Nature of This Volume

New reproductive technologies (NRTs) are of general interest to Canadian society as a whole, as well as to individual Canadians as they pursue the objectives of everyday life. It was clear to Commissioners that NRTs have the capacity to generate debate and soul searching about the most basic and important aspects of our social structure — namely, our families, relationships between mothers, fathers, and children, the nature of filiation, etc. It was equally evident to Commissioners that the increasingly central role of technology in our society and our economy is now the object of an increasingly sophisticated and critical scrutiny by many Canadians.

These considerations convinced Commissioners, from the outset, of the need to understand the values and attitudes of Canadians related to the use of reproductive technologies, as well as specific attitudes about the technologies themselves. It was hoped that such information would help to illuminate the broad social context within which decisions about NRTs will be made by Parliament and legislatures and by key policy makers in the health care, legal, and other systems that provide services to and

This paper was completed for the Royal Commission on New Reproductive Technologies in September 1993.

regulate relations between individual Canadians. Based on this assumption, the Commission had several survey research studies carried out, as well as directly related initiatives aimed at developing a quantitative overview of the social context within which the availability and development of NRTs are, in fact, anchored.

The studies included in this volume were initiated at different points in the life of the Commission, and each had its own focus and emphasis. For a number of issues central to the mandate of the Commission, however, we have available more than one evaluation of public opinion. The main emphasis of this overview and introduction will be to highlight the key findings of the Commission's three main national surveys. Since some issues of interest were addressed in more than one survey, the review of results will be issue driven, allowing "comparable" findings across surveys to be examined and the degree of convergence to be determined. Such comparisons were a challenge, since results were derived from questions similar in emphasis but different in wording and rating scale methodology. Nevertheless, such comparisons do provide, in some instances, greater confidence that we understand where Canadians stand on an issue; in other instances, the comparative process has illuminated where methods of gauging public opinion must be interpreted with caution.

Though the emphasis of this volume will be on providing a quantitative overview of survey results, two of the three national surveys were also preceded by a preparatory qualitative phase in which issues expected to dominate survey initiatives were examined in depth with members of the public. The use of qualitative research techniques, such as focus groups and in-depth interviews, can provide researchers with important information for the development of survey instruments; if used cautiously, the results of such sessions can also add dimension and insight to the interpretation of survey results. Specifically, the comments and viewpoints gathered during the qualitative phase of a project can add to the richness of our understanding, since such sessions typically probe into the reasons why individuals hold particular points of view.

In this overview, focus group results from one of our national survey initiatives have been woven in with the review of survey results to provide a more complete picture of the social context of NRTs. Also available are qualitative results from a study of ethnocultural communities within Canada and their perspectives on a variety of issues related to the mandate of this Commission. Issues central to the Commission's mandate were also addressed in a review of the viewpoints of seven different world religions that have minority representation within Canadian society. Both of these studies greatly assisted the Commission in determining whether differences exist in the way reproductive technologies are viewed within these various ethnocultural and religious communities, compared to Canadian society as a whole. Key results from these studies have been integrated throughout this overview.

Survey Research Results in Perspective

As is evident in any of the subject-specific chapters found in Part Two of the Commission's final report, Commissioners drew upon the results of both the survey research projects and the Commission's extensive public consultation process to inform themselves about the views of Canadians with respect to specific issues, including, for example, commercial preconception arrangements, in vitro fertilization (IVF), and prenatal diagnosis (PND). It is important, however, to maintain some perspective on the usefulness of survey results. It would be misleading, for example, to suggest that these quantitative initiatives can take the place of the dynamic. proactive, policy-rich dialogues and recommendations that the Commission received in the course of its public hearings, written submissions, and consultations with experts and interested parties. Such individuals and groups shared with the Commission their wealth of knowledge and insights into issues of importance to them. Survey research provides at best a cross section of a social dynamic that is constantly changing.

That being said, however, it is equally important to note that these surveys are important ways of understanding the social bedrock or foundations upon which individuals and groups who made presentations and submitted policy recommendations stand. It was important to understand how the "general public" views NRTs — what it is willing to accept and what it finds objectionable — as such broad public opinion can influence policy decisions. Survey research and directly related initiatives were particularly well suited to providing information about the social parameters that will both constrain and channel public policy decisions about NRTs.

It is also important to be aware of the complementary relationship between what Commissioners learned from these quantitative examinations of the views and values of Canadians, on the one hand, and what Commissioners learned from listening to the views of key associations and advocacy group representatives as well as Canadians who shared their first-hand experiences. Public opinion is a useful way of providing some perspective on the much broader and necessarily more complex and often polarized views and comments provided through other avenues. quantitative parameters derived from the various survey research projects provide a way of cross-checking or counterbalancing concerns there might be about any "self-selection" dynamics that could have potentially skewed the representativeness of what was put forward during the consultation process. Accordingly, policy makers, practitioners, advocates, and others will be in a position to use both the quantitative and qualitative assessments of social values and attitudes surrounding NRTs to develop a more complete and comprehensive "composite picture" of the social context for NRT-related policy making and legislation.

The Surveys and Directly Related Initiatives

Over the course of the Commission's work, a number of different research projects were implemented as vehicles for obtaining information about the social values and attitudes of Canadians with respect to reproductive technologies. As indicated in the summary provided in Table 1, the studies included in this volume reflect the application of both qualitative and quantitative research methods to achieve this goal.

During the course of their deliberations, Commissioners placed considerable importance on the social values and attitudes of Canadians relating to reproductive technologies. This is evident in part from the initiation of three separate national public opinion surveys over the course of the Commission's work. Commissioners, however, were committed to understanding and considering the values and attitudes of all Canadians. They were particularly sensitive to the difficulty of extracting the perspective of minority groups from these nationally based studies.

Given the centrality of reproduction to the lives of many Canadians, it was felt that the views of minority ethnocultural and religious communities needed to be considered separately to ensure that any divergence in opinion on this most important topic was well documented. Consequently, two additional studies were commissioned, one focussing on the views of a diverse mix of ethnocultural communities in Canada and one designed to document the views of minority religious groups represented within Canada. The views of visible minority Canadians and those of Native peoples of Canada were also explored during preliminary focus group sessions conducted as part of the Decima Values and Attitudes project. Separate focus group sessions devoted exclusively to documenting the views of these individuals were included in the design of this project. What follows is a brief introduction to each of these initiatives, focussing on the rationale for the project and the methodology used for its implementation.

The Angus Reid Group Research Initiative

The first of the Commission's three national survey initiatives was conducted by the Angus Reid Group. The primary objective of this study was to provide Commissioners with a better understanding of the public's awareness of and attitudes about many of the key issues identified in the Commission's formal mandate. This was a particularly important priority, given that the Commission was preparing for its round of public hearings and wanted a sense of the broad themes of public opinion on NRTs prior to the public hearings and related consultation initiatives.

Project	Key features
The Angus Reid Group	Phase I (April to May 1990)
Research Initiative (1990)	Indepth interviews
	□ Experts □ Interest groups □ Infertile couples (IVF users)
	Focus groups*
	 with the general public
	Phase II (May 1990)
	 telephone interviews — nationally representative sample
Canada Health Monitor Survey #6 (1991)	Telephone interviews — nationally representative sample
Survey #7 (1992)	Telephone interviews — nationally representative sample
The Decima Values and	Phase I (November to March 1992)
Attitudes Project (1992)	Focus groups*
	☐ General public☐ Visible minorities☐ Native peoples
	Phase II
	 □ Preparatory telephone interviews with nationally representative sample to establish mailing list □ Mail survey
Study of Ethnocultural Communities (1992)	Mail survey and follow-up telephone interviews Qualitative analysis conducted
Study of Seven World Religions (1992)	Indepth review of seven different religions with minority representation in Canada Conclusions confirmed through an expert review process

^{*} Focus group sessions were conducted across Canada.

The project itself involved two phases. The initial phase utilized qualitative research techniques such as focus groups and in-depth interviews to probe and document the reasons behind various points of view related to reproductive technologies, treatments, and practices. Experts familiar with various issues related to reproductive technologies, representatives from interest groups and women's groups, and couples who had utilized the services of an IVF clinic participated in the in-depth interviews. Focus groups were composed of members of the general public. Sessions were held in Montreal, Toronto, and Vancouver, with a total of 16 sessions being conducted. Because of the potentially sensitive nature of many of the topics related to reproductive technologies, these sessions were segregated by gender and age. The results of these sessions figured prominently in the development of the survey instrument used in the subsequent quantitative phase of the project.*

The Angus Reid Group survey itself was conducted during May 1990 and involved a randomly selected nationally representative sample of 1 503 Canadian residents. Respondents were interviewed by telephone, and the questionnaire focussed on priority issues identified in the Commission's formal mandate. Key results from the quantitative phase of this research initiative have been summarized in a separate manuscript included in this

Canada Health Monitor Surveys #6 and #7

volume.

Another source of nationally representative public opinion data for the Commission was obtained through involvement with the Canada Health Monitor (CHM), a biannual health survey that has been in operation since 1988. Initial involvement with the CHM was undertaken because "piggy-backing" questions onto an existing, ongoing national survey was deemed the most cost-effective method of obtaining nationally valid point prevalence estimates of infertility among Canadian couples (see Dulberg and Stephens 1993). However, as a subscriber to the CHM during the year that both surveys were devoted to "Health Issues Affecting Women," the Commission also took advantage of the opportunity to explore other issues of relevance while at the same time avoiding the start-up costs of another nationally representative survey.

As a yearly subscriber, the Commission was able to address issues with the general public in two separate national surveys (CHM #6 and CHM #7); in a few instances, survey questions of particular importance were replicated across both surveys. This allowed the Commission to explore the

^{*} This volume does not contain a formal report of the Angus Reid Group focus group findings. However, some of the findings from these sessions have been integrated into the manuscript by M. de Groh, entitled "Key Findings from a National Survey Conducted by the Angus Reid Group: Infertility, Surrogacy, Fetal Tissue Research, and Reproductive Technologies."

stability of public opinion, an important consideration when attempting to map the social context for NRTs.

The Decima Values and Attitudes Project

Through the ongoing process of the Commission's work — public hearings, written submissions, and consultations — it became clear that the elements that influence Canadians' opinions about NRTs are varied and complex and that the values and attitudes of the public merited more indepth attention and analysis. The Decima Values and Attitudes project was the Commission's third national survey initiative and was undertaken to provide a richer understanding of the underlying values and attitudes related to reproductive technologies and practices.

The Decima Values and Attitudes project involved two phases — an initial qualitative phase and a subsequent quantitative (or survey) phase. The preparatory qualitative phase involved the conduct of 10 focus groups in four major cities across Canada (Halifax, Montreal, Toronto, and Vancouver). In addition to preparing for the survey, however, this qualitative phase also afforded the Commission the opportunity of ensuring that the opinions of visible minorities and Native peoples within Canada were documented, as the perspectives of such individuals are often lost in the results of a national survey (commitment to documenting the opinions of visible minorities is also reflected in the Commission's Study of Ethnocultural Communities; see below). Four of the focus groups conducted were composed exclusively of visible minorities, and two involved only Native peoples. The remaining four sessions involved members of the general public (including visible minorities). To facilitate open discussion of the issues, half of the focus group sessions involved only women, and half involved only men.

The second phase of this project involved an extensive national mail survey. A preliminary telephone survey was conducted to collect the names and addresses of potential participants. Since potential respondents had two opportunities to refuse to participate, once when contacted by telephone and once upon receiving the questionnaire, concerns regarding self-selection bias were particularly strong for this study. Therefore, the distribution of respondents on some key sociodemographic variables, including age, income, and marital status, was statistically verified against Statistics Canada census data. The distribution of the final sample of respondents on these variables conformed well to that seen in the general population, thus easing concerns that results from this mail survey might not reflect those of the general population.

The survey instrument developed for the Decima Values and Attitudes project was the most comprehensive of those for the three national surveys conducted (one advantage often capitalized on in mail surveys). In addition to more traditional methods of assessing public opinion (e.g., providing a statement and asking respondents whether they agree or disagree), the

survey instrument also introduced the use of more innovative questioning methods. For example, attitudes toward the use of various assisted conception treatments and practices were explored through describing the experiences of a hypothetical couple (Robert and Mika) who are having difficulties conceiving a child. This represents a much more "personalized" approach to assessing attitudes, in that respondents are asked whether they agree or disagree with Robert and Mika's decision to pursue various options (respondents were also asked what they would do if they were Robert and Mika). In another section of the survey, a "conversation" technique, in which various conversational responses are listed and respondents are asked which best reflects their own position, was used to investigate attitudes toward fetal tissue research. Though not necessarily better or worse than more traditional methods of questioning, these approaches do provide yet another means of exploring the stability of public attitudes with respect to various technologies and practices.

A Study of Ethnocultural Communities

The Commission's Study of Ethnocultural Communities was originally undertaken as a means of further documenting the opinions of visible minorities and other ethnic populations on issues central to the Commission's mandate. This study originally identified and contacted over 300 organizations, some ethnospecific, some ethnoculturally heterogeneous. Among those specifically targeted were ethnocultural women's organizations, as well as women's chapters of ethnospecific groups. However, these groups dominated neither the list of organizations contacted nor the list of organizations that ended up participating in the study. The involvement of these women's organizations is mentioned simply because their opinions sometimes diverged from the opinions of ethnocultural organizations that were not gender specific.

This study was originally envisioned as a formal survey of ethnocultural communities in Canada. Unfortunately, only a fraction of the organizations contacted finally participated. Those who failed to participate were contacted and asked their reasons for failure to become involved. The reasons for failing to participate were often similar across organizations and do provide some insights into the perceptions and priorities of these organizations with respect to NRTs.

The majority of those who did not wish to participate felt that issues related to reproductive technologies were beyond the scope of their mandate. Some of those who failed to participate expressly indicated that the topics included in the questionnaire had never been discussed within their organization — which probably reflects, in part, the "newness" of many of the issues related to NRTs within society as a whole. As a result, many felt that they simply did not know where their community stood on the various issues. Even some of those that participated indicated that their responses represented their best estimates of the position of those

within their community. At this time it would appear that issues related to reproductive technologies simply are not a priority for the vast majority of ethnocultural organizations in Canada. However, since many of the issues related to reproductive technologies are personal issues, it must be kept in mind that this circumstance does not necessarily reflect the importance of such issues for all individuals within these communities.

It was therefore the decision of the researchers to provide the Commission with a qualitative summary of results. For the most part, attitudes expressed by organization representatives (including diversity in the attitudes expressed) reflected patterns similar to that of the general public found in the Commission's national surveys. Only in a few instances did the opinions of ethnocultural communities indicate a different emphasis from that of the general public, and it is these findings, in particular, that have been highlighted in the overview of results that follows later.

A Study of Seven World Religions

A final study undertaken by the Commission was designed to review and document the various religious perspectives of seven religions with minority representation within Canadian society. The seven religious groups considered in this study are listed in Table 2. According to a study on religious affiliation in Canada that was based on 1981 census data (Mori 1987), about 4 percent of the population associates themselves with one of these seven religious groups.

Table 2. The Seven Religious Groups

Judaism Islam Eastern Orthodox Hinduism Sikhism Buddhism Native spiritual practice

Despite the minority status of the seven religions studied, Commissioners recognized that religious opinion constitutes a major source of ethical viewpoints, even among generations no longer actively practising the religious faith of their parents or grandparents. It was expected that a review of these various religions would contribute to a better understanding of Canada's diversity of moral viewpoints related to reproductive technologies.

The approach taken to documenting and summarizing the various opinions of these different religious communities is best described as a set of "case studies." The position of each religious community on various issues related to NRTs was thoroughly researched by an expert in the field of religious studies. To assist in structuring the literature review process and to provide expert reviewers with a clear outline of the conclusions drawn, summary charts were developed for each of the religious groups considered. Each summary chart was then submitted to an appropriate independent religious expert for comment. Minor revisions were then made to the charts, where appropriate. These summary charts also facilitated the comparison of perspectives across religious groups, and the results of this comparison have been integrated into the overview of results that follows.

As one might expect, no issue related to NRTs produced uniform consensus across these diverse religious groups. However, for a number of issues, "majority consensus" was evident. For the most part, it is this majority consensus that will be presented. The interested reader is encouraged to read the manuscript "World Religions and New Reproductive Technologies" in this volume for details on the position of specific religious groups on the various issues related to NRTs.

An Overview of Survey and Related Research Results

The primary objective of this section is to provide a brief overview of the survey research results found in the Commission's three main national survey initiatives. Focus group results complementing survey results have also been introduced, where appropriate, as a means of providing some insight into possible interpretations of quantitative findings. The opinions of ethnocultural community representatives and the position of various religious groups on different issues have also been integrated.

Given the breadth of the Commission's mandate, issues considered in the surveys and related research initiatives are extensive and varied. As a consequence, this overview of results includes a summary of observed attitudes concerning:

- Scientific Developments and Technology
- Family and Children
- Specific Assisted Conception Methods and Practices (IVF, Donor Insemination [DI], and Surrogacy)
- Accessibility: Who Should Have Access to Assisted Conception Techniques
- Personal Alternatives if Faced with Infertility
- Paying for Assisted Conception Treatments
- Prenatal Diagnosis

- Fetal Tissue Research
- Policy Related to Reproductive Technologies: Who Should Decide?

Many of these issues were addressed in more than one survey. This has allowed for some comparative evaluation of results across surveys that touch on similar issues. Wording differences for questions and formatting variations (e.g., scales used to gauge attitudes) across studies have proved a particular challenge to this comparative process. However, these differences have also proved enlightening at times. As will be seen, for example, comparison of results from CHM studies with those from the other two surveys may assist in clarifying the level of "hard" and "soft" support or opposition that Canadians exhibit for various assisted conception techniques and practices.

All surveys also documented observed differences on some key sociodemographic variables, including age, gender, region, education, and income. Age was the only variable that tended to produce consistent differences across issues. For example, those 55 and over (and particularly those 65 and over) were more likely to disapprove of various assisted conception techniques and practices than were those under 55, regardless of what technique or practice was being considered. This is not surprising and probably reflects the more traditional attitudes of this oldest population group. The other sociodemographic variables, however, produced few consistent differences. The few findings that demonstrated gender differences have been documented in the appropriate subsections that follow. As expected, region also produced few compelling differences, which reinforced the feeling of Commissioners that Canadian attitudes and values on these topics are quite uniform across the country. For a more comprehensive review of results, particularly as they pertain to sociodemographic variables, the interested reader is encouraged to consult the original manuscripts included in this volume.

Scientific Developments and Technology

The Values and Attitudes survey conducted by Decima Research was the main source of quantitative indicators of Canadians' attitudes toward scientific developments, medical science, and the use of technology to assist individuals in having children. Those surveyed were asked to respond to a number of statements falling under these general categories, though only a few "marker variables" have been summarized here to provide a sense of Canadians' outlook in these areas.

This survey suggested that scientific developments are viewed positively by a strong majority of Canadians. Over two-thirds of respondents (71%) indicated that they "welcome new scientific developments," and only 10 percent expressed any fear of such developments. When asked whether they were "generally fearful of the impact of scientific developments," a slightly higher percentage expressed some fear (21%) than would

have been expected from the previous statement, though nearly two-thirds (57%) clearly were not fearful.

Compared to general statements about scientific developments, the impact of medical science was viewed with scepticism by a higher percentage of respondents. Thirty-five percent of Decima survey respondents indicated that they "worry that medical science is moving too fast for our society to maintain control over its use"; slightly less than half (44%) indicated that they were not worried. A nearly identical statement included in the Angus Reid Group survey produced similar results. The same percentage of respondents in both surveys (44%) indicated that they were not worried about the pace of medical science. However, a higher percentage of Angus Reid Group survey respondents, compared to those participating in the Decima survey, expressed concern that medical science is moving too fast (44% versus 35%, respectively).

When it came to concerns about the medical technologies used to assist people in having children, about half of respondents (48%) were not worried about the safety of these technologies, though these specific medical technologies were viewed with scepticism by a smaller percentage of respondents (18%) than medical science in general. However, one-third of all respondents failed to agree or disagree with concerns about the safety of reproductive medical technologies, suggesting that these individuals were unsure about such safety issues.

Despite the fact that half of those surveyed either expressed concern about the safety of reproductive medical technologies or were unwilling to take a stand either way, general support for the use of such technologies was quite high. Seventy percent of Decima survey respondents felt that "all known technologies should be made available to help people who have difficulties having a child," and an even higher percentage (76%) expressed support for "using new advances in technology to assist people to have Interestingly, after attitudes toward specific reproductive technologies were assessed (results are reviewed later in this section). general support for the use of reproductive technologies was still relatively high. When asked "from what you may have heard or know, how supportive or opposed are you to the use of reproductive technologies," 62 percent indicated their support, and only 16 percent were opposed. This relatively high level of support was observed despite indications that over one-third of those surveyed (38%) also indicated that they were at least somewhat fearful of the use of NRTs (there was a strong relationship between fear of these technologies and general support for their use — see Decima survey results).

It would appear that the general public exhibits strong support for the use of technology to assist those having difficulties producing a child. Representatives of the various ethnocultural communities were also generally supportive; however, there was some hesitation toward technology in general.

Attitudes Toward Family and Children

Research findings related to perceptions of family and children come primarily from the Decima Values and Attitudes project. This study explored a number of issues, including the importance of children, reasons for having (or not having) children, personal desire and pressures experienced to have children, and perceptions of what constitutes a family. It should be kept in mind that any representative survey sample of the general population will be dominated by respondents who have children. In the Decima study, 71 percent of respondents reported having children. and nearly all reported that their children had been born to them. Though this is by no means a homogeneous group, many of the results considered below have taken "parental status" into consideration.

The Importance of Children

It is not surprising that virtually all of those who reported that they had children also perceived children as a very important component of their lives. According to their summary of results, Decima focus group researchers were left with the impression that women placed greater importance on family and children than did men. During focus group sessions, men were more likely than women to make comments like "my business first, and then my family." Yet survey results found no difference in the level of importance men and women attributed to their partner, children, or work/career.

When asked whether "it is possible to have a happy and fulfilling life without children," the vast majority of respondents without children (82%) agreed with this statement. Significantly fewer, though still a strong majority of, respondents with children also agreed with this statement (67%). It is interesting to contrast these results with those observed for a question asked of Angus Reid Group survey respondents. In this study, respondents were asked whether they agreed or disagreed with the statement, "if I never had any children my life would be less meaningful." For this statement, half of those without children and 75 percent of those with children agreed — they felt that their lives would be less meaningful without children.

It would appear that both of these questions try to address the issue of living without children, though they produce apparently contradictory results. Closer examination, however, suggests that they do approach the issue quite differently. The first statement considers the issue on a more hypothetical level and from a positive orientation — is it possible to lead a fulfilling life without children? The second statement addresses the issue from a more personal and negative orientation (particularly for those who already have children). Of course, these concepts need not be contradictory - many may feel that life would be less meaningful, though still happy and fulfilling, without children. It is simply too difficult to gauge from these results how Canadians actually feel about living child-free. What is clear

from the results reviewed previously, however, is that once children arrive, their importance to most parents is unquestionable.

Reasons for Having Children

The Decima survey also used various methods to explore the possible reasons for having children. In one section of the survey, a number of general statements were included that indicated possible reasons for having children, and respondents were asked whether they agreed or disagreed. In another section of the survey, those with children were provided with a list of possible reasons for having children and asked whether any were involved in their own decision to have children.

Through general statements, three main reasons for having children were explored. Specifically, respondents were asked whether it is important to have children:

- · to share love, caring, and intimacy;
- to carry their culture and ethnic heritage; and
- to pass on their own values to future society.

The more personal reason of sharing love, caring, and intimacy was the most popular purpose for having children, with 68 percent of all respondents agreeing with this statement. Fifty-nine percent of respondents felt that it was important to have children to carry on cultural and ethnic heritages, while less than one-half (44%) attributed the importance of children to passing on one's own values. This study found that men and women did not differ in their pattern of responding to these statements, and the importance of these reasons was unrelated to parental status. As one might expect, ethnocultural organizations, particularly those that were ethnospecific, agreed that children were important to furthering their ethnic and cultural heritage.

When those in the Decima survey who had children were asked about the reasoning involved in making this decision, results for the most part mirrored focus group findings. Focus group researchers found that respondents (particularly women) were hard pressed to articulate exactly why they had children — even when extensive probing was introduced. In the focus groups, the most popular response to this query was "it just happened." Others simply viewed having children as part of the life cycle and thus not requiring any explanation or reason. Highly generalized statements were also the most popular reasons endorsed in the survey the two most popular being "it is a necessary part of life" and "it's just something I expected to do." Interestingly, focus group results did suggest that men, especially visible minority men, were more likely than women to suggest that "continuing the family life-line" was what made having children particularly important. In the Decima survey, however, this reason did not receive higher endorsement among men compared to women. Perhaps the comparatively small percentage of visible minority men in the survey served to mask this focus group finding.

Focus group participants and survey respondents were much more articulate when asked why they felt people choose not to have children (when physically able). During focus group sessions, it was clear that the most acceptable reason for not having children was "financial reasons." It was also generally recognized during these sessions that the decision not to have children was a personal one requiring no justification, though some (usually from visible minority groups) did subscribe to the notion that those who simply choose not to have children are "selfish" individuals.

Survey results reflected many of these same feelings. All respondents in the survey were presented with a number of possible reasons why people might choose not to have children, and they were allowed to select more than one reason. Respondents took advantage of the opportunity to endorse more than one possible reason, which itself reinforces the idea that many saw this decision as being made in a personal context with many possible reasons for not having children, depending on the individual. As in focus group sessions, the most popular reason endorsed for someone choosing not to have children was "financial reasons," with 55 percent selecting this option. Nearly as many (49%) felt that "wanting a career" was an important reason why people choose not to have children, which suggests that many view this goal as inconsistent with raising children in our society. Like focus group results, survey results also suggested that some still view the childless by choice as "selfish" individuals. Thirty-five percent indicated that some choose not to have children because they are "selfish and do not want to give up things." However, nearly as many respondents (38%) endorsed the option that they "don't feel they need to have a reason for not having children." Finally, being in an unsuitable relationship or being in no relationship at all were mentioned by slightly less than one-third of respondents.

It is interesting to compare these perceived reasons for not having children to the reasons most often cited by those who did not have children. For this group of individuals, neither financial reasons nor pursuit of a career figured prominently as reasons for not having children. Rather, the most popular reasons given were: "I have not been in a suitable relationship" (38% endorsed this reason) and "I am waiting until I am older to have children" (33% endorsed this reason). As one might expect, delaying childbearing was a more popular reason among those under 30 (54% in this age group endorsed this reason). Results also indicated that, among respondents without children, 15 percent indicated that "I do not want to have children" and 10 percent indicated that they or their partner "cannot have children." Endorsement of these reasons increased across age groups, though those 40 to 49 who were childless were more likely than any other age group to state that they did not want children.

As a final perspective on the reasons for individuals deciding to have or not have children, the Decima survey looked at perceived need or desire to have children, as well as the pressure respondents might have felt from others to bear children. Both men and women with children recalled experiencing at least some need to have children before they had them (75% and 78%, respectively), though the women surveyed were much more likely than the men to have experienced this need as a "strong need." Significantly fewer, though still half (54%), of those without children reported that their desire to have children was "somewhat strong" or "very strong" (this desire was particularly strong among those under 30 — 71 percent of these respondents reported at least a somewhat strong desire to have children). Interestingly, 14 percent of those without children reported no desire at all to have children, a percentage almost identical to the percentage in this group who reported that they did not want to have children.

When it came to experiencing pressure from others to have children, 66 percent of those with children reported experiencing no pressure at all, and an additional 16 percent said that they had experienced "not too much pressure." Fifty-four percent of those without children reported experiencing no pressure at all to have children, and an additional 18 percent said they had experienced "not too much pressure." In other words, less than 15 percent of those with children recalled some or a lot of pressure being placed on them to have children, and less than 20 percent of those without children indicated some or a lot of pressure from others to produce

children.

Many participating in the Decima focus groups also denied that there is any significant pressure placed on individuals (particularly women) to bear children. Further probing on this issue, however, did suggest that such pressure is not absent altogether. Some felt that cultural background was an important determinant for the presence and intensity of pressure to bear children. This issue also produced one of the few regional differences observed in focus group sessions. Quebec participants were more likely to perceive pressure to produce children, and this was sometimes attributed to the unique cultural position of Quebeckers within Canadian society.

What Constitutes a Family

Both focus group and survey results reinforced the notion that, for most in our society, the ideal family structure consists of a married man and woman with children. However, the existence and acceptance of alternative family forms were also common. During Decima focus group sessions, many recognized that ours is a society in transition, with economic and social realities impacting on and influencing family forms. As a consequence of these realities, a single parent as head of a family was the most widely accepted alternative to the traditional nuclear family. Within focus groups, most accepted without question that a single parent with children represented a family; however, concern was sometimes raised about the pressure, both financial and emotional, that a single parent faces. Decima survey results also suggested a high level of acceptance of a single parent with children forming a family — only 14 percent of those surveyed felt that such an arrangement failed to constitute a family.

With respect to other possible family structures, in focus groups it was visible minority women who were particularly sensitive to the cultural diversity of their communities and to the idea that other family structures, such as the extended family, might play a dominant role. In addition, Native Canadians, particularly men, emphasized a more community-oriented sense of family as their ideal, an ideal that many felt had been lost to the more isolated nuclear family, which they saw as predominating in cities and urban communities.

Despite the acknowledgment of other family structures, in addition to the married man and woman with children, what did tend to dominate was the importance of the presence of children to defining a family. However, an overriding condition, particularly within focus group sessions, was the sexual orientation of the couple. Many focus group participants felt that a homosexual couple could not form a family, regardless of whether children were present. In fact, some were unable to envision a homosexual couple having children, since such individuals were seen as "unable to procreate." Visible minority men were most vocal in their opposition to gay and lesbian couples forming a family. Yet for others in the focus group sessions, the presence of children still dominated the definition of family, regardless of sexual orientation. Survey results also reflected the differing emphasis seen among various focus group participants. Forty-one percent of respondents felt that a homosexual couple was not a family, even if children were present. Nearly as many (37%), however, felt that a homosexual couple with children did represent a family.

Attitudes Specific to Assisted Conception Methods and Practices

A main focus of all three major survey initiatives was the determination of Canadians' attitudes toward various assisted conception methods and practices. Attitudes toward IVF and preconception arrangements (i.e., surrogacy), in particular, received detailed consideration in all three surveys. Exploration of attitudes toward DI, however, was limited to the CHM and Decima surveys.

This section provides a brief and comparative summary of the results observed across studies for these various assisted conception methods and practices. Comparing results across surveys was particularly challenging, not only because the wording of questions put to respondents varied, but more importantly because the scales used to gauge respondents' attitudes varied across surveys. Though potentially problematic, these differences can also help to determine the stability of results.

In Vitro Fertilization

In vitro fertilization is often the assisted conception technique cited as an example of a NRT. As a consequence, it is not surprising that issues related to IVF received considerable attention in the Angus Reid Group survey and that Canadians' attitudes toward the use of IVF were also explored in both of the subsequent national surveys. This section focusses

on attitudes toward the use of IVF as an assisted conception technique for a couple unable to conceive on their own.

In the Decima survey, respondents' attitudes toward IVF were explored both through the highly personalized Robert and Mika scenarios, as well as through a more generalized statement about a couple who cannot conceive unless IVF procedures are used. In both cases, respondents were told that the egg and sperm would be brought together outside the body and then placed back in the womb. Both of these approaches produced a high level of support for this procedure from respondents. Seventy-nine percent agreed at least somewhat with Robert and Mika's decision to use IVF, and 74 percent of respondents would support the use of IVF by the couple who could not conceive. In both of these cases, about one in 10 of those surveyed disagreed with or disapproved of the use of IVF (the remaining respondents were "neutral" on this issue).

In the CHM surveys, respondents were given similar details about a couple using IVF to those in the Decima survey, and this description was replicated across both CHM #6 and CHM #7. However, while the description of IVF was similar, a "forced choice" response approach was adopted, which asked respondents whether they either approved or disapproved of the technology (i.e., no neutral option was provided). Despite this important difference, approximately 80 percent of respondents in both CHM surveys approved of the use of IVF (12% to 15% disapproved, and the remainder failed to respond). This approval rate is quite similar to the level of support for IVF observed in the Decima survey.

Finally, in one section of the Angus Reid Group survey, the IVF procedure was described in detail, and respondents were then asked a series of questions about who should be eligible for its use. The majority of these results on eligibility are summarized in the subsection on Accessibility (see below). However, as a "baseline" measure, respondents were asked whether married couples should be eligible for IVF — yes or no. Within this context, 94 percent of respondents felt that married couples should be eligible for IVF, a percentage significantly higher than that suggested in the other national surveys. One possible explanation for this finding is that Angus Reid Group survey respondents were asked about eligibility, not personal acceptance (i.e., approval or support). It is possible that some who personally disapprove of the procedure would nevertheless be unwilling to deny the use of this technology to other married couples.

Generally, results across the surveys suggest that a strong and stable majority of Canadians approve of IVF as an assisted conception method and that there is near-universal acceptance of this procedure being offered to married couples unable to conceive without assistance. A high level of acceptance of this procedure was also observed among ethnocultural communities, and all but one of the seven groups in the religious study supported the use of IVF, provided all fertilized eggs were used in the process.

Donor Insemination

Donor insemination represents another assisted conception technique that has received considerable attention from this Commission, even though it is not a reproductive technology per se. It has, however, entered the realm of technological intervention, due primarily to the complex screening methods that have become necessary to ensure accessibility to safe sperm (e.g., free from human immunodeficiency virus). For couples in which male factor infertility is the only obstacle to conception, DI represents a far less intrusive and much more cost-effective assisted conception method than a technique such as IVF. However, focus group and survey results, as well as perceptions from ethnocultural communities and the teachings of a number of the religious groups, suggest some discomfort with and rejection of this procedure.

Consideration of the use of DI by a couple in which the male partner is unable to produce children was explored in both CHM surveys as well as the Decima study. Compared to IVF, the results of these surveys suggested that fewer, though still a majority of, respondents approved of or supported the use of DI by a couple facing male factor infertility. In the two CHM surveys, nearly two-thirds approved a couple's use of donated sperm to become pregnant. The Decima survey contained three separate questions on the use of DI (use of "third party" sperm by a couple; use of a sperm bank by Robert and Mika; and use of anonymous donor sperm by a couple). Unlike the CHM surveys, which forced respondents to indicate that they either approved or disapproved of DI, the Decima survey did provide a "midpoint" or neutral response option in all three cases. Under this circumstance, explicit support for/agreement with the use of DI dropped to about half of respondents. Interestingly, a stable minority of about 30 percent of respondents in both CHM surveys and in the Decima study disapproved of/opposed the use of DI.

There was no indication from survey results that women and men differed in their support for the use of DI by a couple. Consistent with this finding, both men and women in the Decima focus groups did place importance on having their own biologically linked children. Men, particularly visible minority men, however, were more vocal and articulate about the importance of maintaining a genetic link to the child (e.g., passing on one's genes; maintaining the family bloodline). Women were more likely to focus on the birth process itself. While this experience is undoubtedly important for many women, it should also not be overlooked that this experience typically guarantees a genetic link to the child born and, thus, this need not be voiced by the woman. Consequently, this apparent difference in emphasis between men and women may have more to do with their dramatically different roles in the procreation process than with the importance they place on maintaining a genetic link to their children.

The perspective of various religions with respect to different assisted conception techniques reiterates in many ways the views of some focus group respondents, though in even more suggestive terminology. The study of seven world religions indicated that DI was rejected by nearly all of the religions, the most common reason being that it was viewed as a form of adultery. Suspect or unknown genealogy of the resulting child was also emphasized by some religions as unacceptable.

Surrogacy (Preconception Arrangements)

Surrogacy represents another historically non-technological practice whose end purpose is to provide a child for rearing by someone other than the birth mother. Modern society, however, has moved surrogacy into the technological realm, particularly as some contemplate the use of IVF to join the gametes of prospective parents and then place the resulting embryo(s) in the surrogate mother to gestate to term.

This issue of using surrogate arrangements as a means of ensuring genetic linkages to one or both prospective parents represents one of the more complex issues explored with the public during focus group sessions and surveys. Both CHM and Decima surveys attempted to compare public support for the use of surrogate arrangements in which the prospective father's sperm is used (genetic link to the father only) with support for a surrogate arrangement in which the egg of the mother who will raise the child is joined *in vitro* with the father's sperm and placed in the surrogate mother's womb for gestation to term (genetic link to both parents who will raise the child). A second complex and controversial issue in its own right concerns whether a surrogate mother should be paid for her services or not. As will be seen, only the Angus Reid Group survey considered this issue in a relatively unambiguous manner (though that survey's results failed to resolve this issue).

Through the Robert and Mika scenario, the Decima survey attempted to look at the impact of genetically linking the resulting child to the prospective father only versus linking the child to both prospective parents (via IVF procedures). Though no mention of payment was made when these two scenarios were presented to respondents, a third question asked them about support for the surrogate arrangement if Robert and Mika intended to pay the surrogate mother. For these three questions, agreement with the use of surrogacy by Robert and Mika ranged from 23 percent (when genetically linked to the prospective father only) to 31 percent (when genetically linked to both prospective parents). In a separate section of the survey, however, 41 percent of Decima survey respondents supported the decision of a couple to hire a surrogate mother who would be inseminated with the father's sperm.

In both CHM surveys, paid surrogacy using the prospective father's sperm and paid surrogacy using the prospective father's sperm and the prospective mother's egg (i.e., via IVF) were considered by respondents. About 40 percent of respondents in both CHM surveys expressed their approval of the surrogate arrangements described, regardless of variations concerning genetic linkage to the resulting child. This rate of approval was much the same as the level of support seen in the Decima survey for a

couple hiring a surrogate mother. Generally, in both of these surveys and across the various questions asked, clear opposition to surrogate arrangements was expressed by slightly more than half of those surveyed.

In both Decima and CHM surveys, it should be noted that details concerning the surrogate procedure were described to respondents. For example, CHM survey respondents were told that "the man donates his sperm to another woman who is paid to have the baby for the couple." In the Decima survey, respondents were told that a second woman "would carry the fetus to birth and then give the baby to Mika and Robert." In other words, in both of these surveys the important details relating to surrogacy were made salient to respondents. This is an important difference from the methodology used to address surrogacy in the Angus Reid Group survey. This difference should be taken into consideration when reviewing results from the Angus Reid Group survey, for it was in this survey that the practice of surrogacy received its highest endorsement from the Canadian public.

While a minority of CHM and Decima survey respondents expressed support for/approval of the use of surrogate arrangements, approximately 60 percent of Angus Reid Group survey respondents felt that surrogacy should be allowed in circumstances where the mother who will raise the child faces fertility problems. Subsequently, these same respondents were asked whether paid surrogacy should be permitted in Canada and whether unpaid surrogacy should be permitted in Canada. Both of these options would be permitted by about half of Angus Reid Group survey respondents.

It would appear that the method used to address the issue of surrogate arrangements greatly influences the percentage who are willing to support its use. Genetic linkage to one or both of the prospective parents appears to have little impact on the level of support for use of a surrogate mother. This is either because the issue itself is of little significance to respondents or because the full implications of the "genetic link" issue were not clear. Most likely the issue of surrogacy itself simply outweighed the more subtle variations in parentage introduced in the surveys.

Though support for surrogacy varied across surveys, one consistent finding was that a slightly higher percentage of women than men was likely to disapprove of the use of a surrogate mother to produce a child. Also, according to Angus Reid Group survey results, women were particularly opposed to permitting unpaid surrogacy, a finding that was consistent with some preliminary focus group results.

It is hard to deny that the strong minority support for surrogacy found across the different surveys was unexpected. Comments from some focus group participants, however, suggested that although surrogacy was not an alternative they would choose for themselves, they saw no moral reason to prevent others from using it. This would seem to be the view of a minority of the general public.

No support for surrogacy was observed among ethnocultural organizations (though some felt they did not have enough information to make a

judgment for their community). It would appear that surrogacy is also rejected by most religious groups considered in the Commission's study. However, it was also pointed out in this study that many of these religious groups have a historical acceptance of polygamy, a practice the researcher discusses as a traditional alternative to surrogacy.

Accessibility: Who Should Have Access to Assisted Conception Techniques

It would appear that issues related to access to assisted conception services result in a conflict of principles and attitudes for some individuals. In the Commission surveys, this was best demonstrated by the results observed when Angus Reid Group survey respondents were asked (generally) about whether IVF users should be screened and then were asked who should be allowed access to IVF services. These respondents were split on the issue of screening potential IVF users to determine parental suitability. Forty-nine percent of those surveyed were opposed to screening, while the other half (47%) supported screening to determine parental suitability. Despite these results, however, only 25 percent of the respondents felt that a lesbian couple should be eligible for IVF services. This suggests that about one-half of those principally opposed to screening potential users for parental suitability would nevertheless deny access to a lesbian couple.

Other Angus Reid Group findings related to the accessibility of IVF services indicated that about one-half of those surveyed would allow single women access to IVF. While this result is not at odds with those observed for the general screening question, it does suggest a degree of conservatism concerning women birthing children without a male partner. In the Decima survey, only 30 percent of respondents supported the idea of a single woman using DI, while about one-half of these same respondents were willing to allow a couple to use DI. Interestingly, 75 percent of CHM survey respondents were willing to allow a single woman to adopt a child.

The results pertaining to a lesbian couple's access to IVF, however, clearly suggest that homosexual alternative lifestyle couples face the strongest opposition to the use of various services to assist them in having children. As mentioned previously, only 25 percent of Angus Reid Group survey respondents would allow a lesbian couple access to IVF services. In the Decima survey, only 15 percent of those surveyed supported the use of DI services by a lesbian couple, and over half (55%) of respondents were strongly opposed. Finally, only about one-third of CHM survey respondents felt that gay or lesbian couples should be allowed to adopt, and, once again, nearly half of those surveyed were strongly opposed to these couples adopting a child.

Personal Alternatives if Faced with Infertility

Decima focus group participants tended to place a high level of importance on having their own biological children. In these same

sessions, discussion of their response if faced with a fertility problem also revealed strong agreement among respondents that medical advice would be sought. Seeking medical advice, however, did not necessarily translate into the pursuit of medical intervention. In fact, the extent to which participants would seek medical intervention in order to produce a biologically linked child was not clear from focus group discussions. Many participants seemed committed to trying to determine what the problem was and to even considering the use of what they perceived as "low-level intervention" (e.g., fertility drugs). After this point, however, the emphasis often shifted to pursuing the alternative of adoption.

Both Angus Reid Group and Decima surveys addressed the issue of what personal alternatives respondents would pursue if faced with difficulties in having their own biological child. The two surveys, however, used dramatically different methods to approach this issue. The Angus Reid Group survey addressed the issue within the context of IVF (e.g., one of the alternative options read to respondents was "use methods like IVF" if unable to have a child). In the Decima survey, the issue of personal alternatives was asked within the context of "male infertility" (e.g., what if the male partner is unable to have children, but the female partner is able to). Also unlike the Angus Reid Group survey, those in the Decima survey were not given a set of alternatives to choose from: rather, the question was open-ended.

Despite these dramatic differences in the approach and context in which the issue of personal alternatives was addressed, both surveys found that about one-half of those surveyed indicated that their personal preference would be to try to adopt a child. In the Angus Reid Group survey, about one-third of respondents said they would "use methods like IVF," though a higher percentage of those 18 to 34 would pursue this alternative compared to other age groups (still half of those 18 to 34 selected adoption as their personal alternative). In the Decima survey, about one-quarter said that they would pursue artificial insemination. Interestingly, the option of accepting the situation and remaining childless was offered to Angus Reid Group survey respondents, and 10 percent felt that this would be their personal alternative; only about 4 percent of those in the Decima survey volunteered that they would "do nothing."

For a majority of Canadians, adoption appears to be the alternative of choice if faced with infertility and childlessness. It is an alternative that virtually all CHM #6 respondents perceived as an appropriate response for a couple facing infertility. The review of religious groups also indicated that adoption was a particularly important alternative to childlessness for Christian-based religions and Native cultures. Adoption, however, introduced complications for some other religious groups, where issues of genealogy and the mixing of castes were important. These groups tended to emphasize the importance of the extended family when dealing with childlessness.

Despite its popularity, there are important complicating issues with respect to adoption. Daly and Sobol's review of adoption in Canada (1993b) suggests that Canadians wishing to adopt face a system in crisis. Couples must often endure long delays within the public adoption system in Canada. Adoption through private sources may be associated with shorter delays, though involvement in the private system is often fee based. Further, except for Quebec, Canadian provinces have no structured approach to facilitating international adoptions (which currently may also restrict involvement based on income).

Clearly, the current adoption system in Canada faces difficult problems, but many of them are solvable through innovation and resolve. The importance of this alternative to childlessness for many Canadians underscores the importance of a commitment to change to ensure satisfactory and equal access for all Canadians. For a further discussion of adoption in Canada, the interested reader is referred to Daly and Sobol's Commission paper on the subject (1993a).

Paying for Assisted Conception Treatments

Canadians demonstrate much pride in their health care system as well as a high level of commitment to its principles. The vast majority of Decima respondents (89%) felt that one of the best things about Canada is our health care system. Over 95 percent of those participating in the CHM Survey #6 felt that both "universality" and "accessibility" were important principles of our health care system (with the vast majority of individuals seeing these principles as very important). A high level of commitment to our health care system's principle of universality also dominated Angus Reid Group and Decima focus group discussions. Yet when it came to discussing the actual funding of assisted conception treatments (specifically IVF), a variety of complex issues were raised, and focus group respondents in both studies tended to be divided in their opinions. What the researchers monitoring the Angus Reid Group sessions also found was that the opinions of participants often changed (both ways) during the course of discussions.

It is admittedly difficult to quantitatively explore these many facets of the debate related to the funding of assisted conception treatments. As a consequence, all three of the Commission's national opinion surveys limited their exploration of the issue to one or at most a few questions on the issue of funding services. Each survey also offered respondents a different set of possible payment options. Despite these differences, however, some of the results observed across these surveys were quite similar.

Despite slightly different sets of response options, 10 percent of Angus Reid Group survey respondents and about 10 percent of those surveyed in two separate CHM samples felt that the health care system should pay the entire cost of assisted conception treatment services. By contrast, one-quarter of Angus Reid Group survey respondents and one-third of those participating in the CHM surveys felt that the cost of such services should

be shouldered entirely by the individual users. The remaining respondents in these surveys, representing slightly more than half, felt that an "individual and province" cost-sharing method was the option of choice. In CHM surveys, most tended to view cost sharing quite literally. In the Angus Reid Group survey, however, respondents were explicitly given the option of having the "amount individuals pay based on income." A significant percentage of these respondents (35%) selected this option, while 25 percent maintained that the cost for services should be split equally between the province and individuals.

Decima adopted the least satisfactory means of exploring the issue of paying for assisted conception reproductive technologies. Respondents in this survey were given five widely divergent opinions and asked which view was closest to their own. These different options pitted against each other different issues addressing direct payment for services, funding research instead of services, and the trade-off of services versus other priorities. Nevertheless, this survey did find that 14 percent felt that the provincial health care system should pay the full cost of reproductive technology procedures — a percentage similar to the 10 percent who endorsed full coverage in the other surveys. Furthermore, 22 percent of respondents in this survey felt that the individual should pay the total cost of reproductive technology procedures — a percentage similar to the one-quarter in the Angus Reid Group survey who felt that such services should be covered entirely by the individual. The remaining individuals were evenly split among the remaining options (i.e., cost sharing; full funding in principle, but there are other priorities; pay for research not treatment).

The consistently small percentage of Canadians who supported full public funding was a surprising finding, particularly given the high level of commitment, in principle, to the notion of universality of health care. Rather, it would appear that a majority of Canadians opt for a position of compromise — a cost-sharing approach for the use of such technologies.

Prenatal Diagnosis

The ability to conduct PND testing represents another important set of reproductive technologies, particularly given their potential for widespread application. The number of Canadian women who will undergo at least one pregnancy during their lifetime is far greater than the number who will face fertility problems and contemplate the use of assisted conception techniques. Amniocentesis and ultrasound represent the two most recognized methods of PND currently available. Though amniocentesis is currently recommended in only a small minority of pregnancies, most pregnant women in Canada will now undergo at least one ultrasound during the course of their pregnancy.

Sixty-nine percent of Decima survey respondents said that they were aware that it was possible to test the fetus for a genetic disease or disability. In the Angus Reid Group survey, 62 percent of respondents indicated that they were aware of this capability and were able to name at least one PND method (as expected, the most common methods mentioned were amniocentesis and ultrasound).

A high level of acceptance and "comfort" with PND procedures was also suggested in both surveys. Sixty-nine percent of Angus Reid Group survey respondents said that they would utilize PND procedures (such as amniocentesis or ultrasound) if they or their partner were expecting a child — and this percentage increased to 79 percent of those 18 to 34. In the Decima survey, respondents were asked a more specific question — namely, if they would undergo testing "if you were at risk of passing along a severe disease to your child." Under this circumstance, 61 percent were very likely to undergo testing, and an additional 18 percent were somewhat likely to undergo testing (nearly the same percentage was supportive of such testing by others).

When it came to addressing a potential consequence of PND testing — that of terminating a pregnancy in which a problem had been detected - there was much less consensus and comfort in dealing with the consequences of testing. In the focus groups, similar issues and positions emerged. For example, there were individuals in both focus groups who preferred to put their trust in nature to take care of such problems. Others expressed concern about who and how society would go about deciding what fetus was not "perfect" enough to be brought to term. Others in favour of selective termination brought up issues related to the economic burden on society of the physically and mentally disabled, as well as the emotional and financial distress of parents in such a situation. It was clear from focus group discussions that an individual's position on the abortion issue strongly influenced his or her position on selective termination, though the severity of the problem detected was also a mediating factor. Many, however, also felt that the issue was a personal one and a decision best left to the woman/parents involved (as opposed to doctors).

In the Angus Reid Group survey, respondents were asked whether pregnancy termination should be permitted when a problem with the fetus is detected. Eighty-three percent said they would permit pregnancy termination if a problem was detected, though half of these individuals qualified their support and would permit termination only in certain circumstances. When support for termination in circumstances of varying severity was explored, the differing perspectives of respondents became more pronounced. The Angus Reid Group survey found that 65 percent of respondents would allow termination of a fetus that, once born, would probably die within the first six months of life. However, only about half of the respondents would allow termination if the resulting person would always require constant care, and less than half would allow termination in the case where the resulting person would spend the rest of his or her life in a wheelchair. Support for termination in these three circumstances was also explored in the Decima survey. Though support for termination

There was only one case for selective termination in which virtually all respondents in both surveys were opposed — that was the termination of a fetus that was not the sex the parents had hoped for. There were also strong opposition and strong group pressure in focus groups to reject such a practice. Though in our society the sex of the child does not represent a "problem" in the same sense as the circumstances reviewed above, many focus group participants were aware that female children in some other cultures were perceived as a strong economic liability. Some male focus group participants from visible minorities did express a preference for at least one male child to pass on the family name. Generally, however, most rejected the idea that Canadians would have a preference for male or female babies, though virtually all also felt that the availability of such technology would translate into fewer females being born.

No ethnocultural organizations studied supported the idea of sex selection. Rather, on the issue of sex selection, these organizations either were strongly opposed (generally ethnospecific and women's organizations) or expressed no opinion (generally the more broad-based organizations). Ethnocultural organizations were also divided into those who felt that producing a male child was extremely important in their community (particularly to men) and those who did not see this as an issue at all in their community. The study of religious groups found strong social pressure within some groups, particularly Hindu and Sikh communities, for male babies, which sometimes translated into the historical practice of female infanticide and the current practice of terminating female fetuses after prenatal testing. Interestingly, this study also mentions that within Canada, members of the Sikh community are among the most vocal against the practice of sex selection.

Fetal Tissue Research

Attitudes toward the use of fetal tissue in research to treat disease were explored in both the Angus Reid Group and Decima surveys. Both national opinion surveys suggested that only a minority of Canadians are actually aware of the existence of fetal tissue research. In the Decima survey, 18 percent indicated that they knew quite a bit about the use of fetal tissue in medical research (though an additional 44 percent did say they had heard something about this). In the Angus Reid Group survey (where awareness was more rigorously tested), less than one-third (29%) said that they were aware of fetal tissue research to treat disease and were also able to name a disease treated with fetal tissue (the most common diseases mentioned were Parkinson's and Alzheimer's).

Both surveys also explored the impact of the "origin" of the fetal tissue on support for the use of such tissue in research to treat disease. A strong majority in both surveys would allow such research to proceed, though

respondents were split on whether the origin of the tissue should be an issue. Nearly one-third of Decima respondents would support research if the fetus was going to be aborted anyway, while nearly one-half would support the research if the fetus was "miscarried." In the Angus Reid Group survey, these results were reversed. One-half of these respondents would allow research to proceed, regardless of the source of the fetal tissue, while slightly more than one-third would restrict the fetal tissue source to natural miscarriages and stillborn fetuses.

As these results suggest, few in either survey were opposed to the use of fetal tissue in research under any circumstances. Eighteen percent of Decima survey respondents said that they would not support such research, and 10 percent of Angus Reid Group survey respondents felt that no fetal tissue should be used under any circumstances. Some of the religious groups rejected outright the use of fetal tissue in research. A few of the religious groups, however, offered qualified support (e.g., use

contingent on age of fetus or origin of fetal tissue).

Interestingly, the level of opposition to the use of fetal tissue in the Angus Reid Group survey (10%) was close to the percentage in this survey who stated that under no circumstances would they undergo treatment using fetal tissue if they were suffering from a serious disease (13%). Most Angus Reid Group survey respondents (72%) said that they would undergo a treatment involving fetal tissue if necessary (with a further 8 percent indicating that it depended on the circumstances — such as origin of tissue or proven effectiveness). This high expected use of such treatment was seen even though one-third of Angus Reid Group survey respondents were clearly concerned that using fetal tissue to treat disease would create a demand for terminated fetuses (one-half of the respondents felt that treatment using fetal tissue would not create a demand for terminated fetuses in Canada).

When interpreting the results concerning the "source" of fetal tissue, it should be kept in mind that both surveys approached this topic on a very general level. It could even be argued that the approach used to explore this issue in both surveys left respondents with the impression that limiting the source of the tissue to spontaneously aborted fetuses represents a viable option that would not interfere with the advancement of fetal tissue research to treat disease. However, two Commission research papers challenge this assumption (see Mullen 1993; Fine 1993), indicating that restricting the tissue source would severely limit research pursuits and the availability of treatment. It is possible that support for the use of all types of fetal tissue in research would have increased had this potential trade-off been made clear to respondents.

Policy Related to Reproductive Technologies: Who Should Decide?

There is little doubt that Commissioners are committed to a multidisciplinary approach to decision making related to NRTs. The need for this type of approach also emerged in focus group sessions and was a common theme expressed by representatives of various ethnocultural communities. Beyond acknowledging the need for a multidisciplinary approach, however, there was little consensus concerning who should be involved in the decision-making process.

The results of the Angus Reid Group survey on this issue indicated that a clear majority of respondents (88%) felt that doctors should be involved in making policy decisions related to the use of reproductive technologies. The involvement of medical research scientists in this decision-making process was endorsed by 80 percent of respondents, and 61 percent of those surveyed felt that individuals who had personal experiences with the issues should be involved. Other than these exceptions, no group or organization received a clear consensus for its involvement, and this included various levels of government, academics, women's groups, and the general public. A majority, however, did feel that religious groups, lawyers, and judges should not be involved in deciding the use of NRTs.

It is likely that most respondents endorsed the involvement of doctors and medical research scientists because such individuals are perceived as experts. These individuals were often described as the experts by focus group participants, and a majority of survey participants indicated that "a doctor" was the most likely person they would approach if they wanted information on reproductive technology issues. However, survey respondents also expressed concerns about some members of the medical profession. For example, about one-half of those surveyed felt doctors were no better qualified than other people to make moral and ethical decisions. About one-half of those surveyed also questioned the motivations of some members of the medical profession. Despite the obvious commitment to a multidisciplinary approach to setting policy in the area of reproductive technologies, survey results failed to shed further light on who the partners in this process should be. There was, however, agreement across focus groups and among many representatives of ethnocultural organizations that regulation and monitoring represented important aspects of society's response to the expansion of reproductive technologies.

Conclusion

Understanding those Canadian social values and attitudes that relate to reproductive technologies was an important component of the framework used by the Commission to guide its decision-making process. national surveys and studies of ethnocultural and religious communities all played an important role in advancing this understanding, as did public hearings, private sessions, and submissions. The Decima Values and Attitudes project in particular helped to articulate the importance that Canadians place on children in our society. The importance of having healthy children underlies the rationale for the existence of reproductive technologies. Results reviewed in this overview strongly support the notion that the desire to have children is one of our most basic human values. Among those that had children (71% of the Decima survey sample), virtually all perceived them as a very important component of their lives. A strong majority of these individuals also recalled at least some need to have children, and few reported experiencing any pressure from others to bear children. A majority of those without children, particularly those under 30, reported a strong desire to have children, and few reported pressure from others to produce them.

Attitudes toward the use of technology to assist individuals having difficulty conceiving also reflect the importance that Canadians place on having children. About three-quarters of those participating in the Decima survey supported the use of technology to assist people in having children, despite worries expressed by some about the safety and pace of medical technologies. Even after various techniques and practices were considered, including exposure to some of the more controversial issues related to NRTs, a clear majority of respondents still supported the use of

reproductive technologies by infertile couples.

However, as well as the undeniable importance of children to most Canadians and the general support expressed for the use of reproductive technologies, survey findings also reflect the pluralistic nature of our society and the complexity of some of the issues related to NRTs. On a number of issues, including access to and funding of services, termination following PND, and even procedures related to the most accepted assisted conception technique — IVF (see results on the handling of excess fertilized eggs in the Angus Reid Group survey) — we find differences between Canadians, although there are clear trends.

The complex nature of many of these issues was reflected in the documentation of some survey findings that on the surface are contradictory. For example, respondents were evenly split on whether IVF users should be screened for parental suitability, and nearly three-quarters felt that a lesbian couple should not be eligible for IVF services. Yet at the same time, paradoxically, the principles of universality and accessibility as they pertain to our health care system also received strong endorsement from virtually all of those surveyed. There was strong support for the availability of assisted conception services like IVF and for the importance placed on having children, yet only about one in 10 respondents in any of the surveys envisioned total coverage of services such as IVF by their provincial health insurance plan. However, it should not be overlooked that most respondents already had children and therefore may have been less willing to see their tax dollars go to provide a service they knew they would not need.

As an integral component of the Commission's evaluation framework, the values and attitudes of Canadians were an extremely important context,

showing a perceived need for limits and restraints with respect to NRTs. In addition, individuals and associations participating in the public hearings and private sessions and those submitting briefs and submissions provided Commissioners with important insights into various methods and practices, and often articulated where they thought these methods and practices had gone too far and why. Commissioners were made aware by all this work of the range, complexity, and diversity of opinion on the various issues subsumed under their mandate. It highlighted for them the need to establish an ethical perspective to assist in guiding the establishment of policy on these issues. As described in other research studies, the Commission's decision-making framework involved commitment to an "ethic of care," which strives to avoid conflict by emphasizing the importance of mutual care and connectedness among individuals and groups within society. Though this perspective strives to minimize conflict among individuals, conflict can never be avoided entirely. Therefore, to further facilitate the application of this overall ethical perspective. Commissioners adopted eight non-hierarchical guiding principles to assist in the formation of ethically based conclusions (see Table 3).

Table 3. The Commission's Guiding Principles

Individual autonomy Equality Respect for human life and dignity Protection of the vulnerable Non-commercialization of reproduction Appropriate use of resources Accountability Balancing of individual and collective interests

Commitment to an ethic of care and application of the eight guiding principles greatly assisted the Commission in developing a comprehensive and consistent approach to the decision-making process and provided the basis for morally responsible recommendations on the issues in its mandate. Though Commissioners considered carefully Canadians' attitudes and opinions on different issues, application of this ethical framework resulted in the adoption of positions on a few particular subjects that were contrary to public opinion, though not to more deeply held values such as equality. Setting public policy requires careful attention to the values and attitudes of Canadians. Many of these are embedded in the Constitution, particularly in the Charter. At the same time, the opinions Canadians hold may sometimes, in specific instances, differ from how the Charter would apply. This situation usually arose when a value that Canadians strongly endorsed and said was important to them, such as equality, was not upheld in answer to a question on a specific situation, such as whether single women should have access to DI or whether people who are disabled should have access to IVF.

The Commission gave great thought to this dilemma. Commissioners were guided by and took into consideration what Canadians said about both their fundamental values and their attitudes to specific questions, but these were not the only determinants of decision making in these complex areas. Where there was a divergence on specific policy questions, Commissioners decided that their moral reasoning should have greater weight if it was in line with fundamental values endorsed by Canadians, because Commissioners had spent much time weighing the evidence and thinking through the implications of different policies on such specific questions.

Future Policy Related to Reproductive Technologies

The development and the potential for the application of reproductive technologies will continue to grow long after this Commission has submitted its report, as will the need to ethically evaluate such technologies. There were strong indications in focus groups, in public hearings, and among ethnocultural community representatives that Canadians are committed to a multidisciplinary approach to setting guidelines for the use of reproductive technologies. Many recognized the great complexity of emerging issues, as well as the potential importance of reproductive technologies for the health and well-being of future generations. It was often felt that the risks are too great to leave the decision making up to one group alone. A significant segment of Angus Reid Group survey respondents felt that although reproductive technologies touched the lives of both women and men, the views of women should be given special consideration. Commissioners also see an important role in the policy-making process for the views of persons knowledgeable about the interests and perspectives of those with disabilities, those who are infertile, members of racial minorities, aboriginal peoples, and those who are economically disadvantaged. There is no question that an inclusive approach, bringing together wide input, in itself brings its own challenges to the decision-making process. However, we firmly believe that through concerted action and cooperation, this is the only way to ensure the ethical and accountable use of reproductive technologies in Canada.

Women, A Caring Society, and Non-Technological Alternatives

A caring society that is committed to women's equality and autonomy must acknowledge that raising children is a choice most women desire to make. This is not to say that voluntary childlessness is not an important alternative for some women. Traditionally, the centrality of motherhood to defining a woman's worth has served to stigmatize childless women. Both focus groups and survey results also suggest that childlessness by choice

is still looked upon as a "selfish" decision by some, though certainly not all, Canadians. As a caring society, it is important that the decisions of those who choose childlessness and those who choose to adjust to childlessness as their response to infertility be respected and that these choices be considered legitimate.

However, the desire of some to remain childless and the choice of others to adjust to childlessness as their response to infertility should not be used as rationale for expecting others to live without children. The findings of the surveys provide evidence that the desire for healthy children is a basic human value for many. We, as a caring society, have an obligation to assist those experiencing difficulty in achieving this goal, if it can be done without harm. Yet a caring society must also acknowledge that using technology to achieve this goal is not the route many Canadians would choose. In two separate surveys, adoption emerged as an important non-technological alternative to infertility for about one-half of respondents. Though the importance of biological children and the probability of seeking medical advice if difficulties arose were both emphasized by focus group participants, such behaviour did not necessarily translate into the pursuit of medical intervention. Adoption emerged as an important alternative for many focus group participants as well. Adoption is clearly an important and acceptable means of avoiding childlessness for many Canadians, yet the adoption system in Canada currently faces many difficult problems.

A caring society must recognize that its members will make different choices, that alternatives, such as adoption, living without children, or pursuing technological intervention, may all be legitimate choices.

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Social Values and Attitudes of Canadians Toward New Reproductive Technologies

Decima Research



Executive Summary

This report summarizes the findings of the Social Values and Attitudes Survey conducted by Decima Research between December 1991 and July 1992. The survey explored Canadians' values and attitudes regarding their perceptions of family, children, relationships, and work. Respondents were also asked about their views on medical science and technology, health care, and using new technologies to assist people to have children. Based on the results of this survey, this report endeavours to assess the fundamental values held by Canadians with regard to the reproductive technologies, as well as their specific views toward donor insemination (DI), in vitro fertilization (IVF), surrogacy, prenatal diagnosis, and fetal tissue research.

There are some difficulties inherent in this type of study. It is often difficult to canvass the views of specific minorities within society. For this reason, a series of 10 focus groups was conducted in conjunction with this survey to ensure all views were heard. Four of these were conducted to determine the views of visible minority Canadians, and two were conducted to determine the views of Native peoples of Canada.

The undertaking of this study and the analysis of the results demonstrated the complexity of determining the attitudes of Canadians,

This paper was completed for the Royal Commission on New Reproductive Technologies in May 1993.

and in understanding what generates these attitudes. Because so many factors contribute to the expression of personal values, it is difficult to assess them. Moreover, values and attitudes are not always permanently fixed: they can change or moderate depending on circumstances. individuals involved, or a specific case study. Furthermore, in many questions, respondents were asked to judge their own knowledge on a particular topic. When respondents are self-defined, accurate assessment is more difficult. The subject matter of new reproductive technologies itself triggers a maze of emotions and complex issues that defv simple or straightforward answers.

Nevertheless, the findings of this survey provide a composite picture of what is important to Canadians, including valuable insight on how Canadians feel about the subject of reproductive technologies. Study of the findings resulted in the following important conclusions.

Family, health, children, and a partner were very important in people's lives. For most respondents, the traditional nuclear family (a heterosexual married couple with children) was still considered the model family, although other arrangements were acknowledged by some of those surveyed. Both marriage and children were important factors in how people determined a family, although the sex of our children was reported not to be important to 75% of those Canadians surveyed. Over half (57%) said that everyone who wants to have a child should be able to do so; 31% disagreed. Yet while it was important to have children, almost three-quarters of those surveyed said that a person could be happy and fulfilled in life without children.

Canadians had mixed views on the limits of science and technology. For instance, more people (42%) said that even though we know more about the processes of human life such as birth, we are not meant to alter them; fewer (37%) disagreed with this statement and the rest remained neutral. The majority (60%) agreed that doctors should not be responsible for moral or ethical judgments about human life. Those with stronger religious faiths opposed the use of reproductive technologies. However, respondents were generally optimistic about scientific developments (67%) and welcomed them. They also believed that people should have the right to use available reproductive technologies, although support was more cautious when specific technological procedures were proposed.

A high percentage of respondents (84%) were aware of the reproductive technologies, but 43% said they did not know enough about them. One-third (31%) said they felt they did know enough about these technologies. Of those who report being unable to have children, 61% had not considered assisted conception, while 32% of these indicated that they would consider it.

Attitudes toward reproductive technologies were not necessarily consistent with attitudes toward technology in general. While seven in ten respondents agreed that all known technologies should be made available to help people who have difficulties having a child, only 46% agreed that having children is so important that technology should be used. There was strong support generally for technologies that already exist: 73% agreed that if the technology to assist people to have children is available, people should have the right to use it. These results, however, did not necessarily translate into strong support for all the specific technologies that are available.

While the majority of those surveyed were not fearful of the reproductive technologies, over one-third (38%) said they were somewhat or very fearful for a number of reasons. For instance, some individuals felt that people are trying to play God, that technology has not been adequately tested and could be a health risk, and that the rights of the fetus are not being recognized.

Although some Canadians were concerned with the safety of medical technologies and the physical risks to the women involved, more Canadians were undecided (32%) and less than half (45%) were not concerned with these issues. Furthermore, they believed that assisted conception methods should be available, despite the potential for harm. because of the importance of these methods to infertile couples.

Although preliminary focus groups showed a preference for medical assistance for those who are infertile (having a biological child was important), the mail survey showed that over 50% of Canadians surveyed would first look to adoption if the male partner were infertile, while 22% would try artificial insemination.

Support appears to be greater for IVF than for other reproductive technologies. Indeed, 79% said they would support IVF where the couple's own egg and sperm were used. Fewer, 54%, supported artificial insemination with donor sperm. However, participants reported a lack of support for surrogacy and an unwillingness to use it personally; 79% said they would not be likely to use surrogacy if the female partner could not bear a child, and only 6% of women surveyed indicated that they would consider being a surrogate under any condition.

The survey also investigated awareness of prenatal diagnostic methods, attitudes toward their use, and the likelihood of personal use. Canadians surveyed seemed to be aware of these techniques (91%) and showed support for them (75%), but their knowledge of them was general and did not extend to specific details. Respondents felt that parents should make the decision to use or not use these diagnostic technologies, and they expressed different views concerning the impact of extensive prenatal testing on society. Some felt it would make parents more aware and prepared for a child with a disability or disease, while others felt there would be more abortions and increased prejudice toward the disabled.

The vast majority were against amniocentesis for non-medical sex identification and the majority (67%) were unwilling to allow this use by others. Moreover, 92% of Canadians surveyed opposed having the option to terminate a pregnancy in these cases. The survey showed majority support for this option only in cases of great physical or mental disability.

Attitudes toward fetal tissue research were less well defined and the majority had not developed an opinion on this research: 52% did not know whether they supported it or opposed it. However, people seemed to be more supportive if the fetus was miscarried or was going to be aborted regardless.

The level of support for reproductive technologies depended on who was using the technologies. For example, support for heterosexual couples using the technologies was high, but for homosexual couples, it was low. These attitudes related to ideas on what constitutes a family. Support for reproductive technologies also varied with the context of use: although 70% said that all known technologies should be made available to help people who have difficulty having a child, fluctuation in respondents' attitudes was observed when presented with a general statement versus a specific scenario. For example, 49% said they would support the use of DI for a couple, but support for its use by single women or by lesbian couples specifically received only 30% and 15% agreement, respectively. In general, then, who is using the technology is an important factor in public support for it.

Screening who has access to reproductive technologies, as well as the cost and who should pay for these technologies, were also discussed. Generally, the majority of respondents did not support screening access based on income, marital status, ability to stay home with the child, or membership in a mainstream religion. Although concern was expressed toward granting access to couples on welfare or homosexual couples having or adopting a child, there was no clear indication as to who respondents thought should be responsible for the cost of the technologies and it was therefore difficult to draw conclusions. Overall, 56% supported the provincial health care system paying at least part of the full cost. More Canadians polled (60%) felt that money should be spent on research into infertility prevention and treatment as opposed to developing new technologies (40%).

The survey found a range of views related to technology based on religious affiliation, support for or fear of technology in general, and support for or fear of the reproductive technologies specifically. People's attitudes to general technology were not always the same as their attitudes toward the reproductive technologies. Nor was religion by itself a determining feature, as those with strong affiliations both supported and opposed reproductive technologies.

Profiles of four different groups were constructed through cluster analysis: the "Moderates" (32% of the survey), the "Technologists" (32%), the "Sceptics" (15%), and the "Traditionalists" (21%) reflected significant variations in opinion on the use of reproductive technologies. The first two groups supported the technologies generally, while the Sceptics and

Traditionalists were unsupportive (with some exceptions).

Supporters of the reproductive technologies tended to be younger and supported technology generally, or tended to be older and less supportive of technology but who felt that the importance of having children overrides these concerns. The Sceptics who opposed reproductive technologies tended to be well educated with weak religious affiliations, and were fearful of how technology will be used and its impact on society. The other group opposing, the Traditionalists, was more likely to be strongly religious and to fear technology generally.

In summary, the results of the survey provide a portrait of Canadians, their general attitudes toward family and having children, their values and attitudes toward technology, and their views on specific

reproductive technologies. The findings suggest that Canadians are generally aware of reproductive technologies but the degree of knowledge depends on the specific technology. The results also show that while Canadians surveyed supported reproductive technologies generally, they were more supportive of some (IVF) and very unsupportive of others (surrogacy, sex selection). Finally, Canadians in this survey seemed to show a willingness to allow others to benefit from some of the technologies even though they themselves may not need to or wish to use them.

Introduction

This is a final report by Decima Research presented to the Royal Commission on New Reproductive Technologies. The results are based on a multi-faceted research program developed for the Commission by Decima.

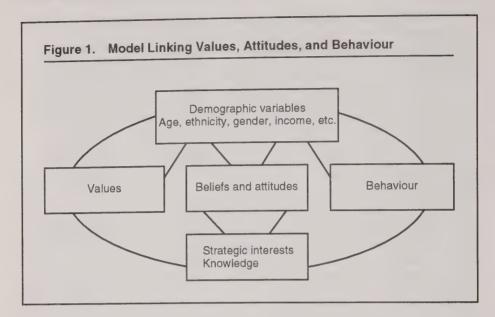
The research was conducted between December 1991 and July 1992. The first phase of the research was to conduct a series of 10 focus groups with members of the population at large, with visible minority groups, and with Native peoples across the country. The second phase was a random telephone survey of 7 664 Canadian residents, and the third phase was an extensive mail survey. The telephone survey was designed, in part, to collect names and addresses for the mail survey. The mail survey, the principal survey instrument, was designed in close consultation with the Royal Commission, members of the academic community, and professional researchers.

This report takes into account all of the work described above, but outlines in detail only the results of the mail survey. Of those surveys that were sent out by mail, 2 722 were completed and returned. The resulting data were adjusted (weighted) to ensure the characteristics of the sample reflected those of the Canadian population for two important variables: sex and province. The results reported in this document are based on a weighted sample of 2 050. Appendix 1 describes the methodology, including statistical verification of the sample and details of the weighting scheme.

The research was designed to meet two principal objectives:

- 1. to assess attitudes toward reproductive technologies; and
- 2. to understand the values, opinions, and behaviours that affect those attitudes.

In order to meet the defined objectives, the questionnaire was based on a model that links values, attitudes, and behaviours (see below).



People's values are the fundamental foundation from which they develop attitudes and beliefs that affect their behaviour. In the questionnaire, the values were tested prior to asking any questions on reproductive technologies. Agree/disagree scales were the principal means of testing value statements, which addressed issues such as the role of women in society, the importance of technology, and attitudes toward tolerance. In addition, the questionnaire assessed what is important in people's lives, including personal health, financial security, and family.

The questionnaire was also designed to assess attitudes toward reproductive technologies and attitudes toward children and family. Several different types of questions were developed to investigate attitudes, such as scale questions, conversation questions, and a scenario. The scenario discussed problems faced by Robert and Mika, a hypothetical couple who are having difficulties having children. Questions were designed to probe views toward Robert and Mika using technologies such as donor insemination (DI) and *in vitro* fertilization (IVF); respondents were also asked about the likelihood of their using such technologies. A "conversation" technique was used to test attitudes toward fetal tissue research by having respondents select the response that best reflected their own position.

In order to find out general attitudes toward family and having children, issues such as pressure to have children and reasons for having or not having children were analyzed according to segment.

In order to assess behaviour, a series of questions was asked about lifestyle and habits. The behavioural measures were a component of a series of demographic questions that asked about age, income, religion, and

other defining characteristics. These questions were used to understand the variation in values and attitudes among segments of society.

Unless otherwise indicated, the report summarizes the data in tables and figures that present percentages based on the (weighted) total number of participants in the study. Therefore, in some instances, percentages for a particular question do not add up to 100% because a small percentage of those surveyed failed to respond to the item (i.e., missing data). However, cross-tabulated tables report valid percentages (i.e., respondents with missing data were excluded).

Observed demographic variations are highlighted throughout the report. Demographic results reported were associated with cross-tabulations producing a statistically significant chi-square value at a 95% level of confidence. Multivariate analysis techniques have been used to better assess the underlying attitudes related to new reproductive technologies, as well as opinions of different population segments.

The report is presented in three sections. The first is descriptive and addresses broader general values on issues such as tolerance, equality, and religion. This General Values and Attitudes section provides the foundation for the second section — Attitudes and Opinions Directly Related to New Reproductive Technologies. The third section, Summary of Results, summarizes the results using multivariate analysis techniques.

General Values and Attitudes

Attitudes Toward Religion

The following section addresses Canadians' attitudes toward religion and religious values in Canadian society. Prior to addressing attitudes, the religious make-up of the respondents was detailed and compared to that of the population of Canada. It is important to recall that the data were weighted to ensure that the distribution of the sample by sex and province reflected that of the overall Canadian population.

About the Respondents

Respondents were asked to identify their religious affiliation; fewer than 3% failed to respond to this question. Table 1 provides a breakdown of religious affiliation for those respondents who answered this question (i.e., valid percents). For comparison purposes, the most recent census data available on the distribution of religious affiliation for the Canadian population at large are also presented in Table 1. Forty-two percent of those who participated in the survey identified themselves as Catholics. This compares with 46% of the general Canadian population in 1991. Fewer, though still notable proportions (33% in total), identified themselves as Protestants, members of the United Church, and Anglicans. Ten percent of respondents surveyed indicated no affiliation with a religious

organization, including respondents who said they were atheists, agnostics, and those who simply said "none." The sample's distribution according to religion is generally similar to that of the Canadian population at large.

Table 1. Percentage of Respondents According to Their Religious Affiliations

	Respondents (%)	General population* (%)
Catholic	42	46
Protestant	13	17
United Church	12	11
Anglican	8	8
Atheist/agnostic/none	10	12
Other religions	15	5

^{*} Based on 1991 Canadian census.

With respect to religious affiliation, there were two notable regional differences in respondents. Compared to the overall sample distribution, a much higher proportion of residents of Quebec were Catholics (82%), while residents of British Columbia were more likely to report being atheists or agnostics, or to have no religious affiliation (21%). These regional differences are similar to those seen in the Canadian population from which respondents were drawn.

Despite the high proportion of respondents who identified themselves with an established religious group, only 20% reported that they attend religious services at least once a week, and an additional 10% attend at least once a month. As indicated in Table 2, 58% of respondents reported that they attend church four times a year or less.

Table 2. Percentage of Respondents Indicating Attendance at a Religious Service or Ceremony

	(%)
At least once a week	20
At least once a month	10
Five to ten times a year	10
One to four times a year	22
Less than once a year	22
Never	14
No response	2

Those more likely to attend church services at least once a week included adults 55 years of age and older (32%), and women (23%) more than men (16%). At the other extreme, residents of British Columbia (25%) were more likely than residents of any other region to report that they never attend religious services or ceremonies.

In addition to these single variable indicators of religiosity, which produce different distributions, a religiosity index was developed to more reliably discriminate among respondents on this important variable. Scores on the religiosity index were based on responses to seven questions, ² and respondents were categorized into five groups, as indicated in Table 3.

Table 3. Distribution of Scores on the Religiosity Index

Value label	(%)
Very low religion	18
Low religion	25
Moderate	23
High religion	14
Very high religion	8
No response*	12

* The "no response" category was relatively high because missing data on any one of the seven variables used to compute the index resulted in a missing score on the overall religiosity index.

Influence on Personal Decisions

Respondents were asked to indicate the extent to which religion influences decisions that are made in their daily lives, using a scale of 0 (least amount of influence) to 10 (most amount of influence). Thirty-three percent of respondents said that religion has a strong influence on decision making in their daily lives (Table 4).

Table 4. Percentage of Respondents Indicating That Religion Has a Strong, Moderate, or Minimal Influence on Decision Making

	(%)
Strong influence (7-10)	33
Moderate influence (4-6)	23
Minimal/no influence (0-3)	38
No response	6

Thirty-eight percent of those surveyed indicated that religion has minimal if any influence over their decisions. Further analysis of the extremes for this scale indicated that nearly 18% of respondents selected a 0 on the scale, signifying the lowest amount of influence, compared to the 12% of respondents who selected a 10 on the scale, signifying the most influence possible. In general, the data suggest that, for two-thirds of respondents, the influence of religion was moderate or minimal.

Certain demographic variations emerged in the data. For instance, Catholics (38%), women (37%) more than men (29%), and adults 50 years of age or older (42%) were more likely than others to indicate that religion has a strong influence over personal decisions in their lives. Regionally, residents of Atlantic Canada (42%) were most likely to indicate that religion has a strong influence, while those in British Columbia (24%) were the least

likely.

General Attitudes Toward Religion

Further understanding of attitudes toward religion can be found in responses to a number of attitudinal statements on which respondents were asked to indicate the extent to which they agreed or disagreed. Figure 2 illustrates responses to three statements addressing attitudes toward religion.

Over half (55%) of respondents agreed with the statement: "It would do Canadians a lot of good if we had more religious values in our lives," with 27% strongly agreeing. Only 22% of respondents said they disagreed with this statement, although another 22% neither agreed nor disagreed.

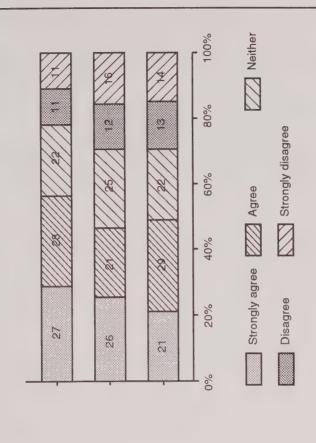
About half (47%) of respondents agreed that "we have reached a time when we all need to reach out to God for help." Less than one-third (28%) disagreed with this statement and 25% neither agreed nor disagreed. As indicated in Figure 2, more respondents strongly agreed (26%) that "we have reached a time when we all need to reach out to God for help" than strongly disagreed (16%).

Half (50%) of those responding to the survey also agreed with the statement: "It is important that children be raised with strong religious values." Unlike the two previous items, this item was not used in the creation of the religiosity index (see endnote 2). Therefore, whether the religiosity index reliably predicts attitudes toward the importance of raising children with strong religious values can be assessed. Ninety percent of those high or very high on the religiosity index agreed with this statement, compared to only 20% of those low or very low in the index (only 5% of those very low on the index agreed with this statement). The validity of the index as a measure of religiosity is supported by these results.



We have reached a time when we all need to reach out to God for help.

It is important that children be raised with strong religious values.



A significant proportion (44%) of those surveyed believed that the declining role of religious teachings in the education system represents a negative impact on society overall — nearly 18% felt it represented a very negative impact. But 28% of respondents believed the declining role of religious teachings in the education system represents a positive development to society, and a similar proportion reported that this change represented neither a positive nor negative impact (27%) — these two groups included over half (55%) of the respondents.

Those more likely to believe that the declining role of religious teachings in the education system represents a negative societal development included adults 60 years of age or older (51%) — especially when compared to adults under 25 years of age, of whom 32% perceived a negative impact. Women were slightly more likely to mention a negative impact

in this instance than men (48% compared to 42%).

Those with a post-graduate university education were less likely to say that the declining role of religious teachings in the education system would have a negative impact (31%). In terms of religious affiliation, Presbyterians (55%), Protestants (51%), Catholics (50%), and members of the United Church (51%) were more likely to believe that this represents a negative impact on society overall. Regionally, respondents from British Columbia were least likely to say the decline in religious teachings represents a negative development to society (36%).

This item was also not included in the creation of the religiosity index, and results indicate that the index has a strong relationship to this item. Seventy-three percent of those high or very high on the religiosity index considered the decline in religious teachings to be a negative development to society, compared to only 24% of those low or very low on the index.

Tolerance and Equality

To further assess general attitudes and values of respondents and, in addition, to gain a greater understanding of their general outlook, the questionnaire included a number of items that measured respondents' sense of tolerance and equality. This was achieved by probing answers to questions about the principle of equality, tolerance levels for homosexual relationships, attitudes toward immigration and the extent to which respondents welcome others to Canadian society, and general attitudes toward women and women's role in society. In addition, a number of items were included to understand the context of public opinion toward health care. These results are discussed below.

General Attitudes

It was the opinion of most respondents that all people should be treated equally. The fact that 90% agreed with the statement: "Every individual should be treated equally regardless of ethnic origin, colour, religion, sex, age, or mental or physical disability," with over two-thirds of respondents strongly agreeing with this statement, demonstrates the intensity with

which respondents supported this notion. As Figure 3 illustrates, fewer than 10% either disagree or neither agree nor disagree with the statement.

Not only were respondents committed to the concept of equality, but a significant percentage stated they would be willing to pay, through taxes. to ensure that all Canadians have the necessities of living. Forty percent of those surveyed said: "I would be willing to pay more taxes to provide adequate food, shelter, and health care for those Canadians who can't provide it for themselves." Twenty percent of respondents indicated that they neither agreed nor disagreed.

Seniors, that is, persons 60 years of age or over (53%), respondents from British Columbia (48%), and men (43%) more than women (38%) were more likely to agree that they would be willing to pay more taxes to ensure that all Canadians were provided with such essentials. A significantly lower proportion of residents of Ontario, in contrast, agreed (37%).

Although it would appear that most respondents believed, in principle, in the concept of equality, responses to specific issues of tolerance and acceptance varied. For example, with regard to acceptance of homosexual relationships, 35% of respondents believed homosexual relationships are acceptable, and over 21% had no opinion. Taken together, this represents 56% of respondents. However, 43% of respondents believed homosexual relationships are unacceptable, with 27% indicating they are totally unacceptable. As indicated in Table 5, respondents were more likely to say homosexual relationships are totally unacceptable than to say they are totally acceptable.

Table 5. Percentage of Respondents Indicating Homosexual Relationships Are Acceptable/Unacceptable

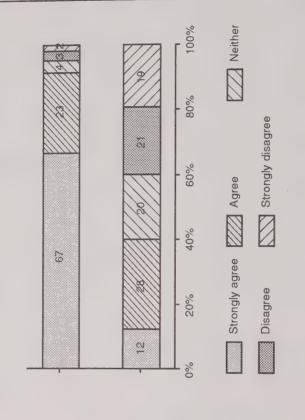
	(%)
Totally acceptable	17
Acceptable	18
Neither acceptable/unacceptable	21
Unacceptable	16
Totally unacceptable	27
No response	2

Demographic analysis indicated that men (31%) were more likely than women (23%) to believe homosexual relationships are totally unacceptable, as were seniors (42%). Furthermore, those with no religious affiliation (16%) and Catholics (21%) were less likely than Protestants (32%) to say that homosexual relationships are totally unacceptable. However, the difference between Catholics and Protestants may include an important cultural influence, since this study also found that 17% of respondents

Percentage of Respondents Supporting Tolerance and Equality Figure 3.

Every individual should be treated equally regardless of ethnic origin, colour, religion, sex, age, or mental or physical disability.

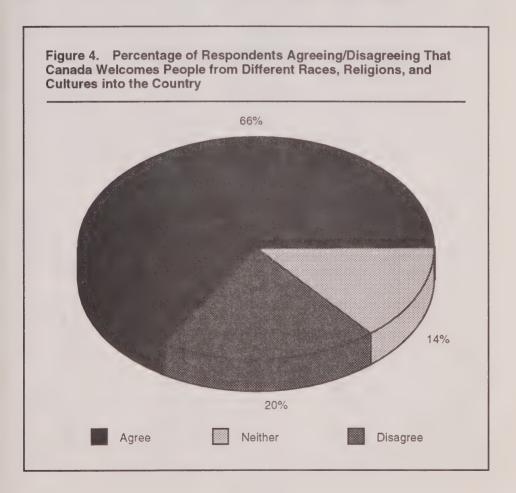
I would be willing to pay more taxes to provide adequate food, shelter, and health care for those Canadians who can't provide it for themselves.



from Quebec (the majority of which were Catholic) were notably less likely than those from other regions (29%-32%) to consider homosexual relationships totally unacceptable.

General Attitudes Toward Immigration

It appears that not only did survey respondents agree with the concept of equality of all individuals, but most also believed that, as a society, Canadians welcome new immigrants from around the world. Two-thirds of respondents strongly agreed (30%) or agreed (36%) with the statement: "Canada welcomes people from different races, religions and cultures into society." As illustrated in Figure 4, 20% of respondents disagreed with this statement and an additional 14% neither agreed nor disagreed.



Attitudes varied little across demographic segments with the exception that those who never attended or graduated from high school (56%) were less likely to agree with this statement compared to those with at least a high school education (68%).

In a further explanation of tolerance for people from other races and cultural backgrounds, respondents were asked to indicate the extent to which the development of an immigration policy that allows immigrants from all parts of the world to enter Canada would have a positive or negative impact on society. Despite general agreement that Canada welcomes people from other cultures to its society, attitudes were more mixed with respect to the impact of an immigration policy that would allow immigrants from all parts of the world to enter Canada. A combined 41% believed this type of immigration policy would be positive (27%) or very positive (14%), but a similar proportion believed it would have a negative (23%) or very negative (14%) impact on the development of Canadian society. The remaining 22% believed it would have neither a positive nor negative impact on the development of society.

Attitudes varied somewhat according to region. Residents of the Prairie provinces (50%) were more likely to believe this type of immigration policy would have a positive impact, while residents of Quebec were somewhat less likely (34%). Further, those with university degrees were more likely to say this type of immigration policy would have a positive impact (58%).

Attitudes Toward Women

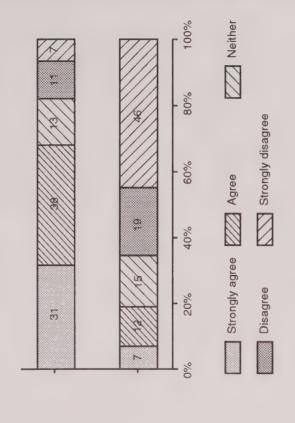
While there is widespread agreement that everyone in society should be treated equally, the majority of respondents recognized that equality between the sexes in terms of opportunities has not yet arrived. As indicated in Figure 5, 69% of respondents agreed that "the opportunities for women are not equal to the opportunities for men in our society." Eighteen percent of respondents disagreed.

Perhaps not surprisingly, agreement with the notion that the opportunities for women are not equal to those afforded to men was notably higher among women (78%) than men (59%). Agreement that the opportunities presented to men and women are not equal was particularly high among university-educated women (85%).

To further explore respondents' attitudes toward the role of women in society, they were presented with an attitudinal statement addressing motherhood. In all, 65% of respondents disagreed with the statement: "Women who have young children and work outside the home are not as good mothers as those who do not work outside the home" — nearly half (46%) of them strongly disagreed. Nineteen percent of respondents agreed with the statement, and 15% neither agreed nor disagreed.

Attitudes Toward Women Figure 5.

equal to the opportunities for men in The opportunities for women are not our society. Women who have young children and work outside the home are not as good mothers as those who do not work outside the home.



Variations emerged across demographic segments of the population. First, a higher proportion of women (70%) than men (60%) disagreed that women who work outside the home are not as good mothers as women who do not work outside the home. Disagreement with this statement was particularly high among women under 30 years of age (81%). At the other end of the scale, while seniors were more likely to agree (30%), this was true to a greater extent among men of at least 60 years of age (38%) than among women 60 years of age or older (23%). In addition, those with minimal educational background were slightly more likely to agree (24%), while those with a university degree were less likely to agree (14%).

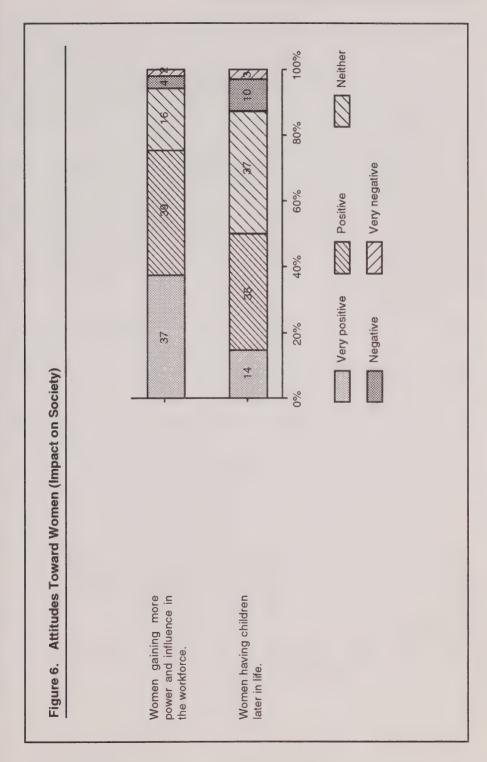
Other survey statements used to explore general attitudes toward women are presented in Figure 6. Respondents were asked to indicate what type of impact (positive or negative) they thought women gaining more power and influence in the workforce would have, and also what type of impact they thought women having children later in life would have on the development of society.

Seventy-six percent of respondents believed that women gaining more power and influence in the workforce would have a positive impact on society. Six percent of respondents indicated that women gaining more power and influence in the workforce would have a negative societal impact, while 16% perceived the impact to be neither positive nor negative.

Women under 30 years of age (88%) and women whose annual household income exceeded \$60 000 (87%) were more likely to indicate that women gaining more power and influence in the workforce represents a positive impact on the development of society. Fewer though still a majority of men earning an annual household income of under \$40 000 (67%) perceived a positive impact. Further, university-educated women (89%) were among those most likely to say that women gaining more power and influence represents a positive societal development.

Further analysis of this item indicated that those who agreed that the opportunities available for women are not equal to the opportunities offered to men were more likely to believe that women gaining power and influence at the workplace represents a positive impact on society (85%, compared to 58% of those who disagreed that the opportunities for women and men are not equal).

Finally, as indicated in Figure 6, the survey also addressed attitudes toward the impact of women having children later in life. The majority of respondents (86%) said that women having children later in life either have no real impact or in fact have a positive impact on the development of society. Only 13% said that women having children later in life negatively affects the development of society.



Attitudes Toward Medicine and Health Care

There is little doubt as to the importance placed on the health care system in Canada by the general public. According to most respondents, Canada's health care system is one of the country's greatest strengths. When asked to indicate the extent to which they agreed or disagreed with the statement: "One of the best things about Canada is our health care system," 89% said they agreed, with over half (52%) indicating that they agreed strongly. Only 5% said they disagreed (see Figure 7).

With respect to attitudes toward medical science, there was concern among a significant proportion of respondents about advancements in this area. Thirty-five percent of respondents agreed with the statement: "I worry that medical science is moving too fast for our society to maintain control over its use." Forty-four percent of respondents disagreed, and 21% neither agreed nor disagreed. Thus, although the majority of respondents did not agree with this concern, about one-third did (see Figure 7). Agreement that medical science is moving too fast was particularly high among seniors (46%) and those with minimal formal educational background (46%).

General attitudes toward the limits of science were quite mixed. For example, 33% of respondents believed that "everything in life can be explained through science," yet a similar proportion (30%) believed alternatively that "everything in life is a mystery." In fact, when asked to position themselves between these two opposing points of view, 37% indicated their belief was somewhere between the two.

The extent to which respondents felt that doctors should be dealing with ethical and moral decisions related to medical practice was limited. When presented with the statement: "Doctors should only be responsible for health care, not for making moral or ethical judgments about human life," over half of respondents strongly agreed (33%) or agreed (27%). As illustrated in Figure 7, 25% disagreed, suggesting that this minority felt doctors should be responsible for moral or ethical decisions about human life. Attitudes on this measure varied minimally across demographic segments.

For a different item concerning medical research, 73% of respondents agreed with the statement: "It is important for people to donate organs to medical science when they die." Despite, in principle, widespread agreement on the importance of donating organs, fewer respondents (46%) reported having signed an organ donation card of any sort.

General Outlook

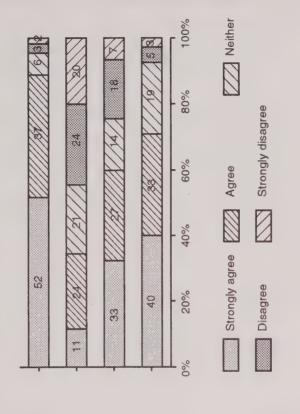
To understand respondents' general outlook on life, they were presented with a variety of statements and asked to indicate the extent to which they agreed or disagreed with each.

Attitudes Toward Medicine and Health Care Figure 7.

One of the best things about Canada is our health care system. I worry that medical science is moving too fast for our society to maintain control over its use.

health care, not for making moral or ethical judgments about human life. Doctors should only be responsible for

It is important for people to donate organs to medical science when they die.



During the focus groups conducted prior to the quantitative research, it was suggested that as a society we have become more materialistic. Concern about this was evident in survey results; 66% of respondents agreed that "Canadians are too preoccupied with buying material things." While 21% neither agreed nor disagreed with this, fewer said they disagreed (12%) (Figure 8). Attitudes toward this varied only minimally across demographic segments.

Fifty percent of respondents agreed with the statement: "Overall, changes in the attitudes of Canadians in the last 20 years have been very positive." As illustrated in Figure 8, 24% of respondents disagreed that changes in attitudes have been positive, and the remaining 26% had no

defined opinion on this issue.

Over half (53%) of respondents indicated that they tend to live their life by "looking to the future and how things might be," rather than by "looking at the past and how things were" (9%). The remaining portion of respondents indicated that their outlook lies somewhere between these two points of view.

According to 42% of respondents, in principle, the rights of the individual are always more important than the rights of the community (see Figure 8). However, only slightly fewer disagreed. In terms of intensity, respondents were nearly twice as likely to strongly agree with this than strongly disagree. Agreement with this statement was lower among the university educated (32%) and Ontario residents (36%), and higher among residents of Quebec (52%) and the Atlantic region (50%).

Over half (62%) of those surveyed agreed with the statement: "I consider myself very aware of political and social issues in the country." However, a significant proportion (38%) did not agree with this statement, suggesting that they do not consider themselves to be very aware of the political and social issues in the country.

More respondents (48%) disagreed with the statement: "In general, I do not react to other people's opinions, even if I disagree with them," than agreed (35%) (see Figure 8).

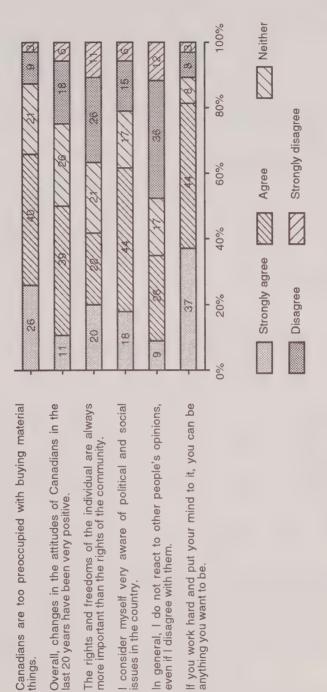
When asked what was more important: standing out and being separate from others or being part of and similar to a group, 39% opted for the former and 29% chose the latter. About the same proportion (31%) indicated neither one as being more important than the other.

The vast majority of respondents (81%) agreed that "if you work hard and put your mind to it, you can be anything you want to be." Agreement with this statement was higher among younger adults of under 30 years of age (87%), and notably lower among seniors of at least 65 years of age (70%).

General Outlook on Life Figure 8.

Canadians are too preoccupied with buying material

Overall, changes in the attitudes of Canadians in the last 20 years have been very positive. The rights and freedoms of the individual are always more important than the rights of the community. I consider myself very aware of political and social ssues in the country. If you work hard and put your mind to it, you can be anything you want to be.



The Family

The following section addresses general attitudes toward family and questions respondents' values on family and views on having children. As an overview, this chapter explores what respondents viewed as important in their lives currently, including what is *most* important; their goals over the next two years; influences on the decisions made in their daily lives; general attitudes toward what constitutes a family; reasons for having children; general attitudes toward having children; and, finally, who they felt should have children.

What's Important in People's Lives

In order to better understand the values and attitudes of respondents toward the family, it was necessary to explore the importance they place on the family in relation to other aspects of their lives. To do this, respondents were asked to indicate how important each of a number of areas were at this point in their lives, using a scale of 0 (less important) to 10 (more important). Column 1 in Table 6 shows the proportion of respondents who rated each item with at least a 7 on a scale (i.e., 7 to 10), and column 2 shows the proportion who assigned that item a 10, the highest importance level possible.

Most respondents (88% to 90% for each item) indicated that their family, husbands, wives, or partners, and their children rated a 7 or more. Approximately two-thirds of respondents assigned a 10 on the scale of importance to family, partner, and children, notably higher than any other aspect of life questioned.

As shown in Table 6, as many people viewed personal health as being important as indicated that their family is important. However, the intensity with which respondents viewed personal health as being important was somewhat less compared to ratings given to family, with 58% compared to 66% giving a rating of 10 on the scale. There is a marked drop for items other than family, personal health, partner, and children, with these representing a cluster of what is most highly valued (column 2 shows this clearly).

Although over half of respondents identified financial security, close friendships, their work or career, or leisure activities as important at this point in their lives, the proportion was notably less compared to those indicating family or personal health as important.

Religious beliefs in daily life were important to approximately 37% of respondents, though only 14% selected a 10 (the highest importance rating) on the scale. While 22% indicated that contributing to the community through volunteer work and 10% indicated that political involvement were important, the intensity was rather less, relative to the other aspects of life asked about, and very few assigned a 10 to either of these aspects of their life.

Some gender differences were observed with respect to importance. Women were more likely than men to indicate that close friendships (75% $^{\circ}$

versus 67%) and their religious beliefs (44% versus 30%) were important. However, those aspects of life in which importance levels did not meaningfully differ for women and men — the importance of spouse/partner, children, and work/career — are also revealing.

Table 6. What's Important in People's Lives

	Importance (7-10) (%)	Highest importance rating (10) (%)
Family	90	66
Personal health	90	58
Husband/wife/partner	89	66
Children	88	68
Financial security	79	30
Close friendships	71	20
Work or career	66	16
Leisure activities	53	7
Religious beliefs	37	14
Contributing to the community through		
volunteer work	22	2
Political involvement	10	1

The relative importance of each of the aspects listed in Table 6 was also explored by having respondents indicate which one item on the list was most important, which was second most important, and which was third most important (results shown in Table 7). Not only do family, personal health, partner, and children emerge as aspects that are identified as being most important, but they also emerged as the only aspects identified by a notable proportion of respondents. Apart from these, no other aspect of life listed was singled out as being most important by a significant proportion of respondents.

When we looked at those aspects that were identified as being at least in the top three most important aspects of life, other items emerged. For example, financial security was one of the top three most important aspects in people's lives for 29% of respondents. Work or career ranked as one of the three most important aspects for 20% of respondents. Slightly fewer (15%) identified close friendships as being one of the top three most important aspects, and even fewer (11%) indicated their religious beliefs were one of the top three most important aspects of their lives. Lastly,

leisure activities, volunteer work, and political involvement were simply not as important relative to the other areas of life listed.

Few demographic differences emerged, although the percentage who rated their personal health as most important increased steadily with age. Twenty percent of 18 to 29 year olds considered personal health the most important aspect on the list, compared to 35% of those 60 years of age or over. Conversely, perception of children as the most important aspect of people's lives decreased with age. Thirty percent of those under 30 years of age considered children the most important aspect of their life compared to only 6% of respondents 60 years of age or older. Finally, results indicated that women (27%) were twice as likely as men (13%) to identify children as the most important aspect of their lives.

Table 7. Rankings of What's Important in People's Lives

	Ranking	
	Ranked as most important (%)	Ranked in top three important (%)
Family	23	58
Personal health	22	54
Husband/wife/partner	23	60
Children	21	52
Financial security	3	29
Close friendships	2	15
Work or career	3	20
Leisure activities	1	4
Religious beliefs	5	11
Contributing to the community through		
volunteer work	0	1
Political involvement	0	1

People's goals and expectations often change during their lives. Given knowledge of the relative importance respondents attribute to various aspects of life at present, it is also useful to explore their goals for the next few years. When presented with the alternatives of financial security, advancing a career, being a good parent, developing close friendships, or building/strengthening a long-term relationship with a man or a woman, 38% of the sample indicated that becoming more financially secure was their most important goal over the next two years (see Table 8). As noted above, very few respondents (3%) indicated that financial security was the most important aspect of their lives at present, and only 29% rated

financial security in their top three important aspects of life (see Table 7). But as a goal over the next two years, financial security emerged at the top of the list with a 10% margin. Even when the sample was divided between respondents who reported they had children and those who reported no children, over one-third of the individuals in both of these groups (37% and 41%, respectively) said that becoming more financially secure was their most important goal over the next two years.

Table 8. People's Most Important Goals over the Next Two Years

	(%)
Becoming more financially secure	38
Being a good parent	28
Building/strengthening a long-term relationship	
with a man or a woman	18
Being promoted or receiving an advancement in career	8
Developing close friendships	7
No response	2

Among those reporting they had children, 39% perceived being a good parent as their most important goal over the next two years (compared to 3.1% of those reporting no children). In contrast, among those without children, building/strengthening a long-term relationship was the most important goal for nearly one-third (30%) of this group, compared to only 13% of those with children. Far fewer in both groups indicated that being promoted or receiving an advancement in their career or developing close friendships was their most important goal over the next two years.

Being a good parent was singled out as being the most important goal over the next two years for a higher proportion of women (32%) than men (23%). Men were slightly more likely than women (20% compared to 15%) to indicate that building/strengthening a long-term relationship was the most important goal.

Attitudes did not vary greatly across the country. Residents of British Columbia were the least likely (22%) to indicate that being a good parent was the most important goal. Residents of Quebec (31%) were less likely than others to indicate financial security as the main goal over the next few years, although they were more likely to indicate that being promoted (12%) was their main goal.

Influences in People's Lives

The decisions people make in their daily lives are often based on the values they hold. In order to explore what influences people's decisions, respondents were asked to rate the influence of their religion, ethnic

background, family, career, partner, and education using the same scale described previously, which ranged from 0 (no influence) to 10 (highest amount of influence).

Not only do family and partner stand out as being important factors in people's lives, but they also top the list of influences that affect decisions people make in their daily lives. Family and partner are important influences in making personal decisions according to 75% and 74% of respondents. Nearly 40% of respondents assigned these a 10, indicating the highest level of influence.

Table 9.	Important	Influences	in	People's	Lives
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	Importance (7-10) (%)	Highest importance rating (10) (%)
amily	75	39
Partner	74	39
Education	65	15
Career	53	9
Religion	33	12
Ethnic background	18	8

Education and career are also important influences for the majority of respondents, though as indicated in Table 9, relative to ratings given family and partner, fewer assigned either education or career a 10. Religion and ethnic background are important influences for only a minority of respondents and, relative to other areas tested, were rated lower. In fact, in these instances, notable proportions gave religion (18%) and ethnicity (20%) a rating of 0 on the scale, the lowest amount of influence possible (results not provided in table).

Attitudes toward the influences on each in making decisions varied by demographic segments. With respect to differences between women and men, women were more likely than men to indicate that family (79% compared to 71%) and religion (37% compared to 29%) are strong influences over the decisions they make; women were less likely than men to indicate that their careers have a strong influence (46% compared to 59%).

Attitudes toward what influences decisions also varied noticeably by age. Partners strongly influenced decisions for a larger proportion of 30 to 39 year olds (82%), and a much smaller proportion of seniors (62%). Seniors were also less likely to indicate that their family has a strong influence over their decisions. The proportion of respondents who were

General Attitudes Toward Family and Having Children

What a "Family" Is

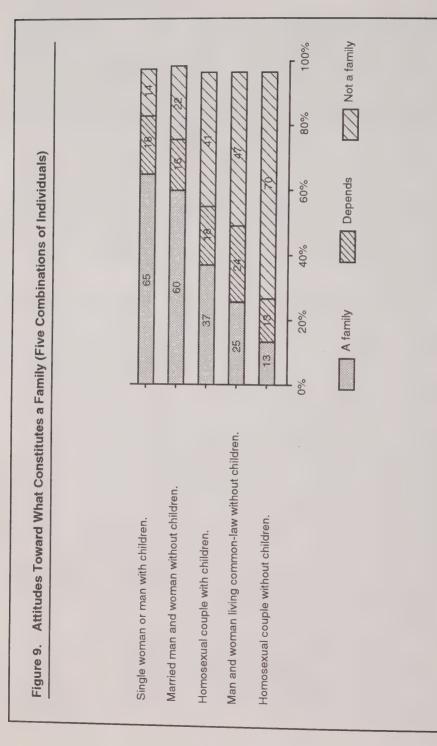
Results of the focus groups conducted in preparation for the mailout survey indicated that a heterosexual married couple with children was what most participants considered to be "a family." During this preliminary investigation, other family structures were acknowledged. Nevertheless, what was fundamental to most participants' perceptions of a family was the presence of children. Results from the mail survey confirmed this to a certain extent.

Respondents were presented with five groups with different characteristics, and asked to indicate if they perceived each to be a family (see Figure 9). Sixty-five percent of respondents considered a single man or woman with children to be a family. Adults of under 30 years of age (75%) and those with a university education (77%) gave the highest responses that this is a family. Thirty-two percent of respondents did not believe it constitutes a family, or said it "depends."

When asked if a man and woman living common-law without children constitutes a family, 25% said it does. In this instance, 47% said it does not constitute a family, while 24% said it "depends." This suggests the importance of the presence of children in defining a family. A homosexual couple with children was considered a family by a significantly larger proportion of respondents than was a homosexual couple without children (37% and 13%, respectively). Seventy percent of respondents did not believe that a homosexual couple without children constitutes a family, the highest consensus of any of the definitions listed. Finally, the importance of formal marriage bonds in defining a family was also indicated. Sixty percent of respondents said that a married man and woman without children constitutes a family. However, a notable proportion (38%) of respondents either did not consider marriage in the absence of children to be a family or believed it would "depend."

Reasons for Having Children

To explore underlying attitudes toward having children, respondents were presented with a number of statements and asked to indicate the extent to which they agreed or disagreed with each. There was some agreement among respondents as to what underlies the importance of having children.



As illustrated in Figure 10, 68% agreed that "it is important to have children to share love, caring and intimacy." Further, over half (59%) of respondents said: "It is very important to carry my culture and ethnic heritage on through my children." In both instances, 17% disagreed. Interestingly, the intensity of respondents' agreement varied somewhat across these two items; approximately 26% strongly agreed that carrying on their culture and heritage through children is important, compared to 36% who strongly agreed that it is important to have children to share love, caring, and intimacy.

The proportion of the respondents who said: "It is important to have children in order to pass on your own values to future society" dropped to less than half (44%). For this item, 30% of respondents disagreed.

The questionnaire also explored the importance of having a male or female child. The pattern of responses for these two questions was very similar. Twenty-five percent agreed that it is important to have at least one male child, and a similar proportion (24%) agreed with the same statement about a female child. There was essentially no difference in the results for these two statements.

Demographic and regional variations emerged in the data. With respect to reasons for having children, respondents from British Columbia were consistently less likely to agree with any of the three attitudinal statements on why having a child is important, while Quebecers were most likely to agree. For example, 61% of those from British Columbia agreed that it is important to have children to share love, caring, and intimacy, compared to 78% of Quebecers. Further, only 43% of British Columbia residents agreed that it is important to have children to carry on their culture and ethnic heritage, compared to 78% of residents of Quebec and 72% of residents in the Atlantic provinces. Lastly, only 31% of British Columbia residents agreed that it is important to have children to pass on values to future society, compared to 69% of Quebecers.

In terms of preference for the sex of a child, men were slightly more likely than women (28% compared to 22%) to agree that it is very important that they have at least one male child, but men and women did not differ with respect to the percentage who felt it is very important to have at least one female child (24% and 25%, respectively). Both age and education level were related to attitudes toward the importance of having at least one male child, as well as attitudes toward the importance of having at least one female child. With respect to age, seniors (i.e., those 60 years of age or older) were more likely to agree with the importance of at least one male child (34%) and the importance of at least one female child (32%). However, it is interesting to note that agreement did not show a linear decrease with age. Rather, the youngest age group (i.e., 18 to 29 years of age) showed the next highest level of agreement with the importance of having at least one male child and at least one female child (28% and 27%, respectively), although percentages for this age group did not meaningfully

Figure 10. Importance of Having Children

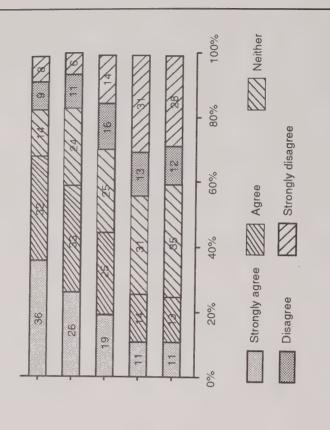
It is important to have children to share love, caring and intimacy.

It is very important to carry my culture and ethnic heritage on through my children.

It is important to have children in order to pass on your own values to future society.

It is very important to me to have at least one male child.

It is very important to me to have at least one female child.



differ from the overall support level for the sample as a whole. With respect to education, the perceived importance of at least one male child and at least one female child decreased slightly as education level increased. Those with only a grade school education were the most likely to agree with the importance of at least one male child (38%) and the importance of at least one female child (35%).

General Attitudes Toward Having Children

Although respondents placed great importance on having children, the vast majority (72%) agreed that "it is possible to have a happy and fulfilling life without children" — 39% of respondents strongly agreed. Fourteen percent disagreed with this statement and 14% neither agreed nor disagreed. Regionally, residents of British Columbia (75%) and Ontario (75%) were most likely to agree, while residents of Quebec (67%) and the Atlantic provinces (65%) were least likely to agree.

The decision to have children is not something the majority of respondents believed should be made lightly. The majority of respondents agreed with the notion of family planning. When presented with the statement: "People should plan the timing of their family very carefully," the majority of respondents agreed (59%), with 24% of respondents indicating that they strongly agreed. Nineteen percent of the respondents disagreed, and 24% neither agreed nor disagreed.

The data indicate that men (66%) were more likely to agree than women (50%) with planning the timing of a family. Younger adults of under 30 years of age (65%) were also more likely to agree. Regionally, residents of Quebec were less likely to agree (34%) that people should plan the timing of their family very carefully. In other regions of the country, the majority of residents were in agreement with this statement, with the highest proportion of agreement among residents of Ontario (65%).

As noted previously, a strong majority of respondents agreed that it is possible to have a happy and fulfilling life without children. In terms of perceptions of the reasons why people do not have children (assuming they are physically able), significant proportions of respondents indicated a variety of reasons.

As indicated in Table 10, over half of respondents (55%) believed that people decide not to have children for financial reasons. The second most frequently cited reason was wanting a career. A large percentage also indicated that concern about what the future holds might be the reason why some people choose not to have children.

	(%)
Financial reasons	55
Want a career	49
Concerned about what the future will hold	46
Don't feel need to have a reason for not having children	38
Selfish and do not want to give up things	35
Do not have partner/spouse	30
Are not happy with partner/spouse	28
Believe there are already too many people in the world	21

^{*} Multiple responses possible.

Who Should Have Children?

While the majority of respondents strongly agreed (33%) or agreed (24%) with the statement: "I believe that everyone who wants to have a child should be able to do so," 31% disagreed or strongly disagreed and 12% of respondents had no opinion.

Demographic analysis revealed that women (59%) were slightly more likely than men (54%) to agree that everyone who wants a child should be able to have one, as were younger adults under 30 years of age (63%). Regionally, residents of Quebec (66%) were more likely to agree, while residents of British Columbia were the least likely to agree (48%).

Canadians have a strong notion of what constitutes the "ideal" family. That is, although there is some acceptance of forms of a family other than the traditional nuclear family, there is widespread agreement that the "ideal" family is that represented by the nuclear family. The majority (68%) of respondents agreed with the attitudinal statement: "The ideal family has a mother, father and one or more children." In fact, 45% said they strongly agreed with this statement. Only 16% disagreed that this represents the ideal family; an additional 15% neither agreed nor disagreed.

Agreement with the notion that the ideal family has a mother, father, and child(ren) was higher among men (71%) than women (65%), and increased steadily with age (58% of those under 30 years of age to 86% of seniors agreed).

The survey also explored under what circumstances having or adopting children would not be acceptable (these two circumstances were not distinguished). Respondents were asked to indicate the extent to which they supported or opposed a single woman, single man, homosexual couple, and married couple on welfare having or adopting children.

As Figure 11 illustrates, few indicated that they would be strongly supportive of any of these groups having or adopting children; only additional minorities reported being supportive. A single woman who decides to have or adopt children outside of marriage or a common-law relationship received the highest level of support, with 39% indicating they would be strongly supportive or supportive. However, 35% of respondents were opposed or strongly opposed to a single woman having or adopting a child outside of marriage or a common-law relationship.

Slightly fewer (33%) were supportive of a single man having or adopting a child outside of marriage or a common-law relationship. In this instance, 43% of respondents said they were opposed.

Only 16% of respondents were supportive of a homosexual couple living together having or adopting a child. In fact, nearly half were strongly opposed to this, the greatest intensity of opposition of any of the scenarios tested. An additional 17% were opposed.

The notion of a married couple on welfare having or adopting a child was opposed by 66% of respondents, with 33% indicating that they were strongly opposed. This was similar to the level of opposition toward a homosexual couple having or adopting a child (65%), although in this instance more were strongly opposed (48%).

Variations emerged across demographic and regional segments. Opposition to a single woman having or adopting a child was higher among men (38%) than among women (32%), and among seniors (54%). Opposition to a single man having or adopting a child was similarly opposed by a higher proportion of men (45%) than women (40%), and by a particularly large proportion of seniors (69%). Opposition in both these cases also steadily increased across the religiosity index. Only 19% of those very low on the religiosity index opposed a single woman having or adopting children compared to 33% of moderates and 66% of those very high on the index. With respect to a single man having or adopting children, 26% of those very low on the religiosity index were opposed in this case, compared to 42% of moderates and 71% of those very high on the religiosity index.

Those more likely to oppose a homosexual couple having or adopting a child included men (71%) more so than women (60%) and, again, the vast majority of seniors (77%).

Opposition to a married couple on welfare having or adopting a child was higher than the overall sample among residents of Ontario (70%) and those whose annual household income was at the high end (72%). Residents of Quebec, in contrast, were notably less likely to oppose a married couple on welfare having or adopting children (54%).

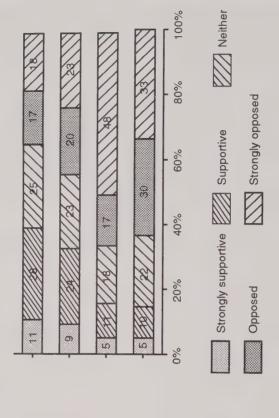
Figure 11. Attitudes Concerning Certain Groups Having or Adopting Children

Single woman who decides to have children outside of marriage or common-law relationship.

Single man who decides to have children outside of marriage or common-law relationship.

Homosexual couple who are living together.

Married couple on welfare.



To further understand the values that Canadians hold about family and toward having children, the questionnaire contained items specific to a respondent's point in life. One part of the questionnaire was divided into three sections to be filled out by those who (i) have children; (ii) do not have children; and (iii) perceive their partner or themselves as unable to have children for physical or other reasons. The third section could be filled out by respondents with no children or by respondents who already had children.

Those Who Have Children

Seventy-one percent of all respondents reported that they have children. Of these respondents, the vast majority (88%) indicated that their children were born to them. Two percent indicated that they have adopted children, and 5% indicated that they have both adopted children and children who were born to them.³

The most common reason given by respondents for having children (by those who have children) was that "it is a necessary part of life" (41%). The second highest response, by 38% of these respondents, was: "It's just something I expected to do." In addition, 20% indicated that "it wasn't something I really thought about." Being somewhat more specific, 35% indicated that one of the reasons involved in their decision to have children was that of wanting "to help a child grow and learn." Also more specific, 20% said they wanted "to pass along the family bloodline," while slightly fewer said they wanted "to experience childbirth."

Table 11.	Reasons	for Having	Children	(Those	Who	Have
Children)	k					

	(%)
It is a necessary part of life	41
It's just something I expected to do	38
To help a child grow and learn	35
It wasn't something I really thought about	20
To pass along the family bloodline	20
To experience childbirth	15

^{*} Respondents were allowed more than one response.

Interestingly, women were much more likely than men to report feeling "a strong need" to have children prior to having them (51% and 36%, respectively), though men (37%) were more likely than women (27%) to say they had experienced "some need" to have children. Considering both these

categories together (i.e., a strong need and some need), there was no difference between women (78%) and men (75%), although the intensity of need expressed does appear to have been stronger for women than for men. In addition, regional differences were observed, with the vast majority of residents of Quebec (71%) reporting "a strong need" to have children. The level of "strong need" to have children in other regions ranged from 29% (British Columbia) to 39% (Ontario).

Table 12. Feeling a Need to Have Children (Those Who Have Children)	
	(%)
A strong need	45
Some need	32
Not too much need	13
No need at all	6
No response	4

Despite the high proportion of parents who reported feeling a need to have children prior to having them, fewer felt any pressure from others to have children. In fact, as shown in Table 13, 66% reported feeling "no pressure at all." Very few (13%) reported feeling "a lot" or even "some" pressure.

Children)	
	(%)
A lot of pressure	2
Some pressure	11
Not too much pressure	16
No pressure at all	66
No response	

Of respondents who did report feeling at least some pressure, those most frequently the source of the pressure were friends (39%), followed by mother (36%) and spouse (33%). Fewer mentioned that the pressure originated from their father (21%) or grandparents (13%). On the pressure to have children and need to have children, variations in terms of demographic segments or regional boundaries were minimal.

Those Who Do Not Have Children

Another section of the survey was designed for those who do not have children (including those with children only related by marriage, never pregnant, and/or past childbearing years). Twenty-nine percent of all respondents completed this section. The two most frequent reasons for not having children (among those who do not have any children) were "I have not been in a suitable relationship" and "I am waiting until I am older to have children" (see Table 14). Beyond these, various reasons were cited for not having children. Approximately the same proportions indicated that they had no reason, their career, they did not want children, and they were afraid about the future for the child. Far fewer said: "There are enough children and people in the world today," and very few said: "I don't think I would be a good parent."

Table 14. Reasons for Not Having Children* (Those Who Do Not Have Children)

	(%)
I have not been in a suitable relationship	38
I am waiting until I am older to have children	33
There is no reason why, it just hasn't happened yet	16
Because of my career	15
I do not want to have children	15
I'd be afraid about the future for my child	13
There are enough children and people in the world today	7
I don't think I would be a good parent	4

Only asked of those who do not have children.
 Respondents were allowed more than one response.

Two notable differences emerged between men and women on this topic. Women were slightly more likely than men to say that they were waiting until they are older (36% compared to 30%), and less likely to say that they had not been in a suitable relationship (32% compared to 42%).

Attitudes also varied by age. Those under 30 years of age were much more likely to indicate that they were waiting until they are older (54%), or that they have not had any children yet because of their career (20%). Older adults of between 40 and 50 years of age were more likely to indicate that they did not want children (40%).

Interest in having children among this group of respondents without children was quite strong, with over half indicating a "somewhat strong" (28%) or "very strong" (26%) desire to have children (see Table 15). However, a sizable proportion (35%) indicated a minimal desire, if any, to have children.

Women who do not have children were much more likely to indicate a strong desire to have children than their male counterparts (32% compared to 21%). Regionally, residents of Quebec (36%) were more likely to indicate a strong desire to have children, while those in British Columbia were least likely to indicate a strong desire (16%). Not surprisingly, with respect to age, adults under 30 years of age were also more likely to report a strong desire (38%).

	(%)
Very strong desire	26
Somewhat strong desire	28
Not a very strong desire	21
No desire at all	14
No response	10

Up somewhat from the proportion who have children, 36% of those who do not have children reported feeling pressure to have them. However, very few indicated feeling "a lot" of pressure. As indicated in Table 16, over half indicated feeling "no pressure at all."

	(%)	
A lot of pressure	3	
Some pressure	15	
Not too much pressure	18	
No pressure at all	54	
No response	10	

In terms of who has applied this pressure, mother (50%) and friends (50%) headed the list of sources. Far fewer indicated that their father (26%), spouse (15%), or grandparents (11%) had applied pressure.

Nine percent of those without children reported they were past childbearing years (this represents 3% of the entire sample). Those who reported being past childbearing years were also asked to indicate which of a number of opinions best reflected their own views. As indicated in Table 17, over one-third each chose the statements: "I sometimes regret

Table 17. Feelings About Not Having Children (Those Who Do Not Have Children)*

	(%)
I sometimes regret not having children, but I am	
generally happy	36
I never regret not having children	34
My life isn't fulfilled because I didn't have children	6
I still hope to have children someday	5
I really regret not having children	3
No response	16

^{*} Question asked only of those who reported they were past childbearing years.

Those Who Are Unable to Have Children

The final section was designed for respondents who perceive themselves or their partner as unable to have children for physical or other reasons. Respondents were first asked to indicate if they had ever thought about using artificial insemination (AI), IVF, surrogacy, sperm donation, or adoption as a means of having children. Only a small percentage of all respondents (8%) completed this section of the survey,⁴ and 61% of these respondents had not considered any of the procedures. Among those who had considered at least one of the procedures listed, the most popular was clearly adoption. Thirty percent of respondents who said they were unable to have children had thought about adoption, while 14% indicated having thought about AI. Very few indicated having thought about IVF, surrogacy, or sperm donation (see Table 18).

Technology

Responses to the questionnaire gave an indication of respondents' values and attitudes toward technology. Below is an assessment of attitudes toward technology and the impact of scientific developments in general, and attitudes toward technology specifically related to reproduction and having children.

Table 18. Assisted Conception Procedures Considered* (Those Reporting They Are Unable to Have Children)

	(%)
No procedures considered	61
Al	14
IVF	7
Surrogacy	3
Sperm donation	8
Adoption	30

^{*} Unless respondents said no procedures considered, multiple responses were possible (percentages based on all respondents in subsample).

General Values and Attitudes Toward Technology

General Orientation Toward Technological Developments

In order to better understand respondents' attitudes toward technology in general, they were presented with two opposite orientations and were asked to indicate which best reflected their own views. The data show that the majority of respondents view technological developments positively. When presented with two opposing statements, namely: "I am generally pessimistic about how helpful scientific developments can be," and "I am generally optimistic about how helpful scientific developments can be," 67% of respondents said the latter was closer to their point of view. In fact, only 10% chose the first statement. The remaining 22% positioned themselves between these two points of view.

The survey also found that 71% of respondents said: "I welcome new scientific developments." Few (10%) chose the alternative point of view: "I am fearful of new scientific developments." Eighteen percent indicated that they would position themselves between these two points of view.

Although the differences between men and women with respect to the extent to which they would describe themselves as being optimistic about scientific developments are minimal, differences do emerge in the extent to which men and women indicate that they welcome new scientific developments. In this instance, 76% of men, compared to 66% of women, indicated that they tend to welcome new scientific developments as opposed to being fearful of them.

In further revealing their general orientation toward technological developments, over half disagreed (36%) or strongly disagreed (21%) with the statement: "I am generally fearful of the impact of scientific developments." Twenty-one percent agreed or agreed strongly that they are

fearful of the impact of scientific developments. The remaining portion of respondents (21%) neither agreed nor disagreed.

Men were more likely than women to disagree that they are fearful of the impact of scientific developments (64% compared to 51%).

Specific Processes

While attitudes toward technological developments in general were quite positive, the data suggest that respondents tend to be more wary of specific procedures arising from these developments. For example, respondents were presented with the following statement and asked to indicate the extent to which they agreed or disagreed: "I believe that even though there are some processes of human life, such as birth, that we increasingly know more about, we are not meant to alter these processes." Attitudes toward this statement were varied. Just over 40% of respondents strongly agreed (22%) or agreed (20%) that there are certain processes of life that should not be altered. While fewer disagreed with this statement (37%), the difference is not that great. What is noteworthy, however, is the fact that respondents were more likely to strongly agree than strongly disagree (22% compared to 14%). The remaining portion of respondents (20%) indicated that they neither agreed nor disagreed.

To assess attitudes toward the application of technological developments, respondents were asked to indicate the extent to which they supported or opposed the use of technology "to keep people alive when they would die without it," and "to transplant organs" (Figure 12).

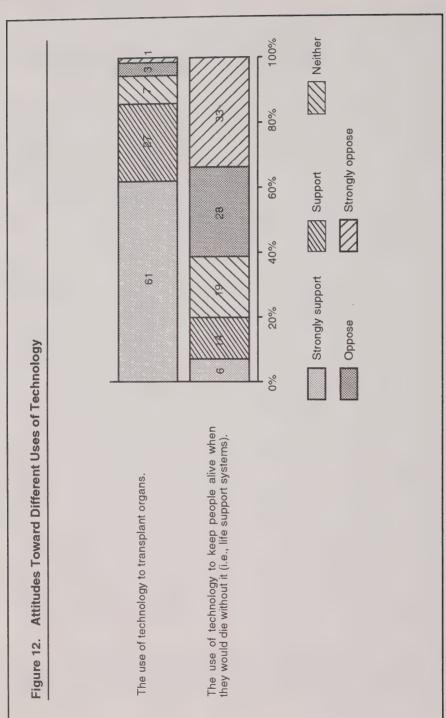
While the great majority of respondents (88%) indicated that they would support the use of technology to transplant organs, what is particularly interesting was the intensity of support, with 61% indicating strong support. Very few opposed the use of technology to transplant organs.

The data suggest that attitudes toward the use of technology vary depending on the context of the use. For example, there was much less support for the use of technology to keep people alive when they would die without it. In fact, only 20% of respondents said they would support or strongly support the use of technology in this context. Hence, attitudes toward using technology to keep people alive are quite different from attitudes toward using technology to transplant organs, even though both represent methods of extending life through technological intervention.

Opposition to the use of technology to keep people alive is highest among residents of Quebec (68%) and lowest among residents of the Atlantic provinces (52%). In addition, opposition is also higher among older respondents (40 years of age and over, 69%), compared to younger respondents (under 40 years of age, 54%).

Attitudes Toward Technology Related to Reproduction

In general, the idea of using technological developments to assist people who are unable to conceive received widespread support from respondents. With respect to access to developed technologies, 73% of



respondents said that if the technology is available, then people should have a right to use it. When presented with the statement: "If the technology to assist people to have children is available, people should have the right to use it," 38% said they strongly agreed with this, and an additional 35% said they agreed. As indicated in Figure 13, few disagreed that people should have the right to use available technology.

A strong majority of respondents said that all known technologies should be made available to people experiencing difficulties having children. Seventy percent of respondents agreed with the statement: "All known technologies should be made available to help people who have difficulties having a child." The remaining portion of respondents either disagreed (17%) or indicated that they neither agreed nor disagreed (13%).

Support for the use of technological developments to help people who are unable to have children is based in part on the perceived role technology plays in having children. Forty-six percent of respondents agreed with the statement: "Having children is so important that technology should be used." Twenty-five percent of respondents disagreed with this statement, and 28% indicated that they neither agreed nor disagreed.

The majority of respondents supported using technology in the area of reproduction. Fifty-five percent disagreed with the statement: "Technology should not interfere with nature when it comes to having children." Twenty-six percent of respondents were in agreement with this, while 18% indicated no opinion.

Further evidence indicating respondents' support for the use of technology in the area of reproduction was found in response to a measure that asked respondents to indicate how supportive of or opposed they were to "using new advances in technology to assist people to have children." As indicated in Figure 14, 76% of respondents indicated that they supported the use of new advances in technology to assist people to have children. In fact, overall, 41% were strongly supportive. Only 10% opposed the use of new advances in technology to assist people to have children.

The extent to which respondents supported using sperm from a third party to help a couple who have difficulty conceiving and the intensity of this support drop somewhat, but 58% of respondents were at least somewhat supportive of the use of sperm from a third party, with 28% of respondents indicating they would be strongly supportive. Twenty-two percent of respondents opposed or strongly opposed its use, and 20% had no opinion on the use of sperm from a third party (see Figure 14).

When presented with the statement: "I am opposed to using new advances in technology because there are physical risks to the woman involved," 23% of respondents said they agreed with the statement. Thirty-two percent of respondents neither agreed nor disagreed, and 45% disagreed with the statement. Nearly half of respondents (48%) surveyed also disagreed with the statement: "I worry that medical technologies are not safe enough to be used to assist people to have children." Thirty-three

80

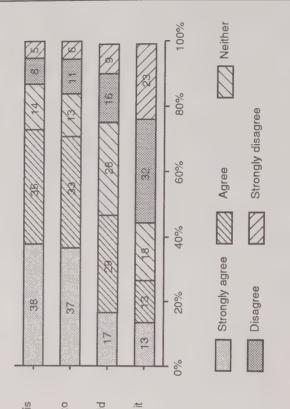
Figure 13. Attitudes Toward Using Technology to Help People Have Children

If the technology to assist people to have children is available, people should have the right to use it.

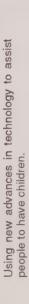
All known technologies should be made available to help people who have difficulties having a child.

Having children is so important that technology should be used.

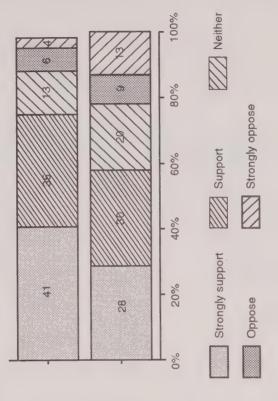
Technology should not interfere with nature when it comes to having children.



Attitudes Toward Technology and Donor Insemination to Assist People with Reproduction Figure 14.



Using sperm from a third party to help a couple who have difficulty having children.



percent indicated that they neither agreed nor disagreed with the statement. A small minority (18%) agreed with the statement (see Figure 15).

As the overall results show, there is generally strong support for technology, and reproductive technologies in particular. However, the results also show that some respondents have concerns over the use of reproductive technologies.

Attitudes and Opinions Directly Related to New Reproductive Technologies

The following is a review of specific attitudes and opinions related to new reproductive technologies. The material is based on responses from several scenarios (see Appendix 2), the Robert and Mika story, the Marcel conversation, and specific support/opposition, screening, and cost questions. The story and conversation methods are innovative ways of eliciting information that permit the subject matter to be treated in an informative, friendly manner.

Overall Opinions

Awareness

The self-reported level of awareness of reproductive technologies was very high; 84% of respondents considered themselves either somewhat or very aware of the technologies. Awareness was slightly higher for respondents who had some university (94%) or graduate education (93%). Although the data show a high level of self-reported awareness, these results should be interpreted cautiously. Experience has shown that respondents tend to overestimate their knowledge of any issue in telephone and mail surveys.

Awareness also appears to be related to support for the technologies. Toward the end of the survey, respondents were asked: "From what you may have heard or know, how supportive or opposed are you to the use of reproductive technologies?" Respondents who indicated a higher level of self-reported awareness of the technologies were more likely to be supportive, as shown in Table 19.

Table 19 also shows that the variation in opposition across different levels of awareness is very small compared to the variation in support across different levels of awareness. The most significant difference among respondents who were "not at all aware" is their level of neutrality (neither support nor oppose). In general, it appears that becoming aware is likely to shift individuals from neutrality to support.

There were also significant regional differences observed, as indicated in Table 20.

Concerns About Health Risks Related to the Use of Technology to Help People to Have Children Figure 15.



I worry that medical technologies are not safe to assist people to have to be used enongh children.

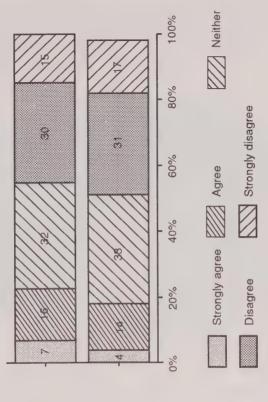


Table 19. Awareness of New Reproductive Technologies and **Support for Reproductive Technologies**

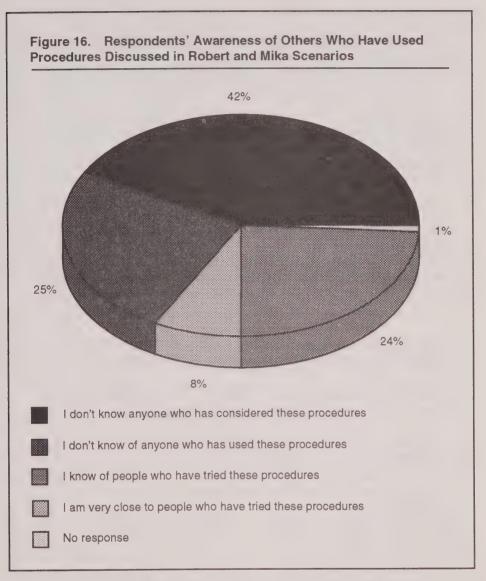
	Very aware (%)	Somewhat aware (%)	Not very aware (%)	Not at all aware (%)	Row total (%)
Support	71	64	45	33	63
Neither support nor oppose	12	20	39	43	20
Oppose	17	16	16	24	16
Column total	29	56	12	2	

Table 20. Regional Differences in Reported Awareness of **New Reproductive Technologies**

	British Columbia (%)	Prairie provinces (%)	Ontario (%)	Quebec (%)	Atlantic provinces (%)	Row total (%)
Very aware	34	34	34	17	23	29
Somewhat aware	55	55	53	63	58	57
Not very aware	10	9	10	17	15	12
Not at all aware	1	2	2	3	4	2
Column total	12	17	37	26	9	

Respondents were asked whether they knew anyone who had used or was using one of the procedures discussed in the survey (i.e., AI, IVF, surrogacy). As indicated in Figure 16, 8% of respondents indicated that they were very close to people who had tried one of the procedures. An additional 24% indicated that they knew of people who had tried these procedures — whether these respondents interpreted this to include knowledge of publicized cases (e.g., Baby M) or high-profile individuals (e.g., celebrities) is not known.

Respondents who were between 30 and 39 years of age, the principal childbearing years, were more likely to have had contact with someone who had used the procedures (41% either knew of someone or were close to someone who had used the procedures).



Support and Opposition

The question of support for the use of reproductive technologies reveals attitudes toward the technologies. As indicated above, the question posed was: "From what you may have heard or know, how supportive or opposed are you to the use of reproductive technologies?"

Overall, 62% of respondents supported the use of reproductive technologies; almost one-quarter were strongly supportive (23%) (see Table 21). Twenty percent neither supported nor opposed their use, leaving 16% opposed (5% strongly).

Table 21.	Overall	Support	for	the	Use	of	Reproductive
Technolog	gies						

	(%)
Strongly support	23
Somewhat support	39
Neither support nor oppose	20
Somewhat oppose	11
Strongly oppose	5
No response	2

The key demographic variations are shown in Table 22. The demographics presented are inter-related. For example, education and income are correlated demographic variables (e.g., those with higher levels of education also tend to have higher income levels), so it is not surprising that both of these demographic segments vary in the same direction.

Table 22. Demographic Variations Related to Support for/ Opposition to the Use of Reproductive Technologies

More likely to support*	(%)	More likely to oppose*	(%)
Overall sample support	62	Overall sample opposition	16
18-29 years of age 30-39 years of age	(+11) (+8)	60 years of age or older	(+11)
Working full time	(+8)	Retired	(+11)
Education Post-graduate degree Some university Community college	(+8) (+9) (+9)	Some high school, or less	(+6)
Annual household income \$60 000-\$79 999 \$80 000 and over	(+9) (+14)	Less than \$39 999	(+4)
Ontario residents	(+4)		

^{*} The numbers in parentheses indicate the degree of deviation from the overall sample percentage who supported (or opposed) the use of reproductive technologies.

The religiosity index showed significant variations for support for and opposition to the technologies. Of the respondents who rated high on the religiosity index, 37% opposed the use of reproductive technologies (compared to an overall sample opposition rate of 16%). Of the respondents who rated very low on the religiosity index, 76% supported the use of reproductive technologies (compared to the national average of 65%).

Availability of Reproductive Technologies

Related to support for or opposition to the technologies is the notion of availability of reproductive technologies. To assess attitudes toward the availability of reproductive technologies, respondents were presented with two opposing points of view and asked to indicate which was closest to their own. The question posed was:

Some people say that assisted methods of conception should not be widely available because the medical procedures may endanger the health of women.

Other people say that assisted methods of conception should be widely available because the medical procedures are so important to women and men who are infertile and want to have a child.

Based only on these two arguments, which is closest to your view ...

Should be available						ould not be lable at all
1	2	3	4	5	6	7
20%	39	9%	23%	11%		4%

The argument that assisted methods of conception should be widely available because the medical procedures are so important to women and men who are infertile and want to have a child holds more credence with respondents than that of limiting the availability of reproductive technologies because the medical procedures may endanger the health of women. In fact, one in five respondents indicated complete agreement that reproductive technologies should be widely available, compared to only 4% who were in complete agreement that reproductive technologies should not be widely available.

As indicated previously, a separate question in the survey was used to examine the percentage of respondents opposed to new reproductive technologies because of concerns about physical risks to women. Table 23 cross-tabulates this individual statement against the general "availability" statement outlined above.

Table 23. Attitudes Toward Availability of the Technology by Whether or Not Respondents Were Opposed to New Advances Page of Physical Risks

	Should be available (%)	Neither (%)	Should not be available (%)	Row total (%)
			Alexandra and	
Opposed to using new advance physical risks to the woman inv		Decause	tnere are	
physical risks to the woman inv		pecause 26	40	22
physical risks to the woman inv Agree	rolved			22 32
physical risks to the woman inv	rolved 17	26	40	

The results show that respondents were generally consistent in their general attitude toward the technology and on the specific question of availability, although 17% of respondents who believed that the technologies should be available also said they were opposed to new advances in technology because of the physical risks to women.

Table 24. Attitudes Toward Availability of the Technology by Whether or Not Respondents Agree That All Technologies Should Be Made Available to Help People Having Difficulties Having a Child

	Should be available (%)	Neither (%)	Should not be available (%)	Row total (%)
All known technologies should difficulty having a child	d be made av	ailable to	help people wh	o have
Agree	84	57	38	71
7.9.00				
Neither agree nor disagree	7	23	17	12
0	7			

Table 24 shows that among respondents who believed that the technologies should be available, 84% agreed with the general attitude statement that all known technologies should be available for those who have difficulties having a child. However, among those who stated that

reproductive technologies should not be available, 38% agreed with the general statement that all known technologies should be made available to help people who have difficulties having a child. It is possible that these individuals, when faced with the health trade-off presented in the availability question, believe that under those circumstances the technologies should not be available.

Fear of the Technologies

The extent to which the general population is fearful of the use of reproductive technologies, and the reason for this, were investigated through the question: "Based on what you may know, how do you feel about the use of new reproductive technologies?"

Figure 17 lists the response options that were available to respondents. Sixteen percent of respondents reported being "not fearful at all," and an additional 42% reported being "not very fearful." Though the majority of respondents reported little or no fear, 33% did report being "somewhat fearful," with an additional 5% being "very fearful."

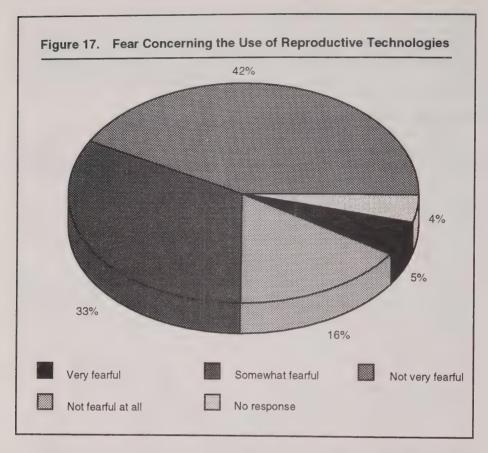
Fear of new reproductive technologies was also cross-tabulated against overall support for/opposition to the use of such technologies. Clearly support/opposition was strongly related to the level of fear respondents reported with respect to new reproductive technologies, as indicated in Table 25.

Table 25. General Support for Use of Technologies by Whether or Not Respondents Were Fearful of the Technologies

	Support for the technologies						
	Strongly support (%)	Somewhat support (%)	Neither (%)	Somewhat oppose (%)	Strongly oppose (%)	Row total (%)	
Fear of technologies							
Very fearful	0	1	5	10	59	5	
Somewhat fearful	9	31	51	67	28	34	
Not very fearful	47	59	36	17	6	44	
Not fearful at all	44	9	7	6	7	17	
Column total	24	40	20	12	5		

Respondents who said they were somewhat fearful or very fearful of new reproductive technologies were also asked to give reasons why. Potential reasons were listed for these respondents and multiple responses were possible. The reasons and percentages observed are presented in Table 26.





There were variations in the reasons for opposing the technologies according to responses on the religiosity index. In general the level of fear expressed by respondents increased as scores on the religiosity index increased. For example, 21% of those very low on the index said they were very or somewhat fearful of new reproductive technologies, compared to 38% of moderates and 70% of those very high on the religiosity index. In addition, respondents who ranked very high on the religiosity index were more likely to answer: "The rights of the fetus will not be recognized," or "People are trying to play God." Respondents who ranked very low on the religiosity scale were more likely to answer: "The technology has not been adequately tested and could be a health risk," and "The technologies will be used for purposes such as cloning."

Personal Assessments

In the Robert and Mika scenario of the survey respondents were first asked what they would do in a situation where the male partner of the couple was physically unable to have children. Fifty-one percent said they

Table 26. Reasons for Being Fearful of Reproductive Technologies* (Those at Least Somewhat Fearful of New Reproductive Technologies)

	(%)
People are trying to play God	45
The technology has not been adequately tested and could be a health risk	38
The rights of the fetus will not be recognized	38
The technologies will be used for purposes such as cloning	37
Women will be used for reproductive services	35
Doctors will have too much control over reproduction	30
Research on the causes of infertility will not continue	26
Women will be pressured into having children, regardless of their personal	
choice	21
This is too much like science fiction	20

Multiple responses were possible.

would adopt and 22% said they would try AI or a sperm bank. Other responses included: "Nothing" (4%); "See a doctor" (5%); and "Check into other options" (4%). These responses differed from what was expected based on the preliminary focus groups, which showed there was a preference toward medical assistance, though not necessarily intervention. In these group sessions, respondents placed great importance on having their own biological children. Adoption was considered an option only after seeking medical advice. These particular survey results may have been due to the way the question was worded or the responses may reflect the composition of the focus group.

However, the attitudinal variations observed for this question were consistent with other survey results. Artificial insemination or a sperm bank was more likely to be an option for respondents who were generally supportive of the technologies. Those who were close to people who had used reproductive technologies were also more likely to mention

insemination/sperm bank as their option.

Attitudes Toward Al

As reviewed previously in the section of the survey addressing values and attitudes, respondents were asked whether they supported or opposed "using sperm from a third party to help a couple who have difficulty having children," and to what extent. This was the first question in the survey to address this issue. Fifty-eight percent of respondents were supportive, while only 22% were opposed.

When AI was described in more detail in the Robert and Mika scenario, 54% agreed with Robert and Mika using DI to have children and 27% disagreed.

Table 27. General Support for Using Sperm from a Third Party by Agreement/Disagreement with Robert and Mika Using Donor Insemination

	Support (%)	Neither (%)	Opposed (%)	Row total (%)
Agree with Robert and Mika using DI				
Agree	80	30	11	54
Neither	12	38	14	18
Disagree	8	32	75	28
Column total	58	20	23	

Table 27 shows agreement with Robert and Mika using DI, cross-tabulated against support for using sperm from a third party generally. As shown, the pattern of responses in the survey for these two questions is quite similar. Agreement with Mika and Robert using DI was consistent with the general support for using donated sperm.

Survey results also indicate that respondents who were more supportive of the use of the technologies were more supportive of Robert and Mika using DI. Table 28 cross-tabulates agreement with Robert and Mika using DI by general support of/opposition to the use of reproductive technologies. The data show that respondents who supported the use of the technologies in general were significantly more likely to agree with Robert and Mika using DI, while respondents who were opposed to the use of the technologies in general were much more likely to disagree.

Through the Robert and Mika scenario, attitudes toward the couple using a particular technology were compared to respondents' personal likelihood of use if faced with the same situation. On the issue of insemination, 54% agreed with Robert and Mika's decision. Nearly half of the respondents (47%) also said they would be very or somewhat likely to use this method if they were Robert and Mika. As expected, there was a strong correlation between agreement and personal likelihood of using the method. The majority of respondents who neither agreed nor disagreed with Robert and Mika said they were unlikely to use insemination themselves.

Scores on the religiosity index showed a strong relationship to the issue of sperm donation. For example, 72% of those very low on the religiosity index agreed with the idea of Robert and Mika using donated sperm.

Table 28. General Support for the Use of Reproductive Technologies by Agreement/Disagreement with Robert and Mika Using Donor Insemination

	Support (%)	Somewhat support (%)	Neither	Somewhat oppose (%)	Oppose (%)	Row total (%)
Agree with Robert and Mika using DI						
Agree	84	67	30	17	5	55
Neither	8	16	34	15	7	17
Disagree	6	17	35	67	88	27
Column total	24	39	20	12	5	

In contrast, 57% of those moderate on the religiosity index and only 30% of those very high on the index agreed with Robert and Mika using sperm donation to conceive a child (a highly similar pattern of results was also observed for the general question on use of sperm from a third party).

The investigation into attitudes toward DI included assessing men's attitudes toward sperm donation. Twenty-six percent of male respondents said they would be very or somewhat likely to consider donating their sperm to a sperm bank, and 73% said they would be unlikely to consider donation. Men who were unlikely to donate sperm generally cited one of two reasons: "I don't want someone I don't know to have my child" (46%), and "I could not go through the process of donation" (34%). Seventeen percent said it was morally wrong, and almost the same number (18%) said they opposed insemination (multiple responses were possible).

Among the 26% of men who said they would at least consider sperm donation, over one-half (53%) then failed in a follow-up question to indicate the type of circumstances in which they would actually donate their sperm. Twenty-five percent of this group did say they would consider donation if their identity was kept confidential, while 21% said they would consider donation "if I am donating sperm to assist someone I know." Multiple responses were possible and 10% of these respondents selected both of these conditions. Further details are included in the interview schedule (see Appendix 2).

IVF

Attitudes toward IVF were tested using the Robert and Mika scenario and other specific examples. Within the Robert and Mika scenario, IVF was also explored in the context of surrogate arrangements (discussed below).

Nearly 80% of respondents agreed with Robert and Mika using IVF to assist Mika becoming pregnant. This is significantly higher than the level of agreement for using DI. The focus groups showed that this may be expected, because some people expressed concern that using sperm from a donor resulted in a genetic link with only one partner (a woman), whereas IVF (as presented) would use both Robert's sperm and Mika's egg.

Anticipated personal use in a similar situation was also high. Over three-quarters of respondents (76%) said they would be very or somewhat likely to use IVF if they were Robert and Mika. As expected, there was a high correlation between agreement with Robert and Mika's decision and personal likelihood of use. There was also some association between agreement with DI and the use of IVF. On the one hand, 94% of respondents who agreed with DI also agreed with using IVF. On the other hand, only 25% of respondents who disagreed with Robert and Mika using DI also opposed the use of IVF.

Respondents who rated low on the religiosity index were more likely to be supportive of Robert and Mika's use of IVF (82%) than were respondents who rated high on the index (71%). Nevertheless, as can be seen, a strong majority of those high on the religiosity index still supported IVF.

As with DI, respondents supportive of the technologies were more likely to agree with Robert and Mika using IVF. Table 29 illustrates the variations.

Table 29. Support for the Use of Reproductive Technologies by Agreement/Disagreement with Robert and Mika Using IVF

	Support (%)	Somewhat support (%)	Neither (%)	Somewhat oppose (%)	Oppose (%)	Row total (%)
Agree with Robert and Mika using IVF						
Agree Neither Disagree	97 2 1	91 7 2	66 25 9	52 22 26	22 18 59	80 12 8
Column total	24	39	20	12	5	

The data show that almost all respondents who supported the use of reproductive technologies also agreed with Robert and Mika using IVF. The level of disagreement among those opposed to the technologies, however, was not nearly as strong as the high percentage of agreement among the supporters, which may show that IVF is more accepted than the other

technologies tested, even among those generally opposed to new repro-

ductive technologies.

Fear of reproductive technologies is also related to agreement with the use of specific technologies. In the case of IVF, 90% of respondents who were not fearful at all of the technologies agreed with Robert and Mika using IVF, while only 42% of respondents who were very fearful agreed with the use of this method.

Residents of Ontario were more likely to agree with the use of IVF (83%), as were respondents between the ages of 18 and 29 years of age (88%).

Surrogacy

Summary

Agreement with Robert and Mika using surrogacy (i.e., preconception arrangement) with insemination (using sperm from Robert in the gestational woman) was significantly lower than the agreement with either DI for Mika or IVF. Twenty-three percent of respondents agreed totally or somewhat with Mika and Robert taking this approach. Nineteen percent neither agreed nor disagreed, and 58% disagreed (see Figure 18).

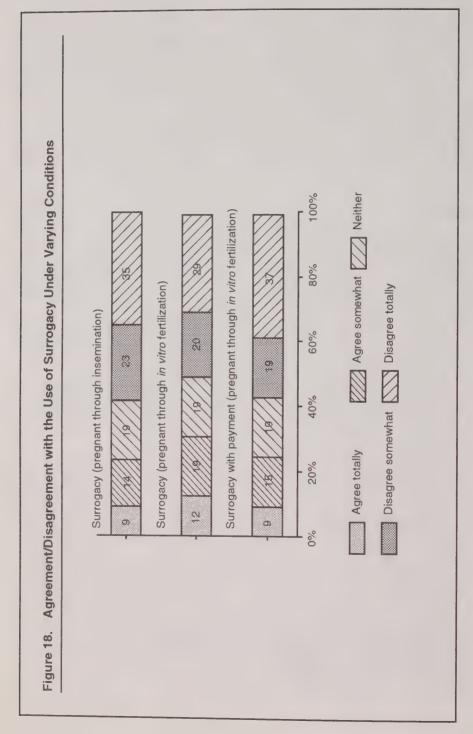
Slightly fewer respondents would be likely to use this method themselves. Twenty percent of respondents would be likely, while 79% of respondents would be somewhat or very unlikely to use surrogacy if they

were in Robert and Mika's situation (see Figure 19).

Demographic variations showed that men were more likely to agree with involving a surrogate than women. Younger respondents, between 20 and 34 years of age, were more likely than their older counterparts, 60 years of age and over, to agree with Robert and Mika using surrogacy (28%)

compared to 11%).

In the case of surrogacy using IVF (that is, the gestational woman carries the embryo created *in vitro* by Robert's sperm and Mika's egg), agreement with Robert and Mika's decision was higher than surrogacy with insemination using Robert's sperm (see Figure 18). Thirty-one percent of respondents agreed with Mika and Robert taking this approach, compared to 23% who agreed with using a surrogate who becomes impregnated through insemination using Robert's sperm. Results of the focus groups showed that people are less supportive of any technology, such as surrogacy with insemination, that does not involve the gametes of the two partners of a couple. The embryo in the surrogacy-with-IVF case would genetically be the child of Robert and Mika. This may account for the difference in responses between the surrogacy scenarios. While 31% agreed with this method of surrogacy, 49% clearly disagreed and 19% neither agreed nor disagreed.



The personal likelihood of use was slightly higher for the surrogacy-with-IVF method as well, with 28% likely to use IVF and surrogacy if they were in the same situation as Robert and Mika.

Finally, as indicated in Figure 18, respondents were asked whether they would agree or disagree with surrogacy with IVF if the surrogate (gestational woman) was paid. The results indicated that when payment was mentioned, agreement decreased; the likelihood of use by respondents decreased as well, though only slightly. Whereas 31% agreed with the surrogate arrangement with no mention of pay, 24% agreed with the arrangement when the woman was being paid. Similarly, 28% were likely to use the method when there is no mention of being paid, and 24% were likely to use this method if the woman was being paid.

Respondents 20 to 34 years of age were more likely to agree (31%), while those 60 years of age or older were less likely to agree with surrogate arrangements (14%). Respondents who were atheist/agnostic were more likely to agree, a variation that seems to be related to religiosity, with

greater religiosity translating into stronger disagreement.

Respondents who were supportive of DI, and the use of IVF by Robert and Mika, did not show the same intensity of support for surrogate arrangements. While 97% of those strongly supportive of reproductive technologies agreed with the use of IVF, 61% of this same segment supported the use of surrogacy without mention of payment, and only 51% agreed to surrogacy with payment. Respondents who were opposed to the use of the technologies showed extreme disagreement with surrogacy. Table 30 cross-tabulates support for the technologies by agreement level for the two IVF-with-surrogacy scenarios investigated (i.e., IVF surrogacy with no mention of payment and IVF surrogacy with payment to the gestational woman).

Table 30 shows that over one-half of respondents who strongly support the use of reproductive technologies agreed with Robert and Mika using surrogacy under either condition. However, it should be kept in mind that less than a third of all respondents agreed with the use of any type of surrogacy (see Figure 18).

Women's Attitudes Toward Surrogacy

A set of questions in the survey addressing the issue of surrogacy was posed to women only. The objective was to assess the likelihood of women choosing to become surrogates (i.e., becoming pregnant and carrying a fetus for another woman), and the reasons or conditions that would be required for them to do so. Only 6% of the women surveyed would be likely or very likely to become surrogates under any circumstance. Of the great majority of women who were unlikely to become surrogates, 66% offered the reason: "Because I couldn't give away a baby I gave birth to." Sixty-three percent said they were unlikely to become surrogates "because I wouldn't undergo pregnancy or birth unless it was my child."

Table 30. Support for Use of Reproductive Technologies by Agreement with Surrogacy

	Support (%)	Somewhat support (%)	Neither (%)	Somewhat oppose (%)	Oppose (%)	Row total (%)
Agreement with ca transferred to ges					y IVF and	i
Agree	61	34	13	8	1	31
Neither	17	20	31	8	2	19
Disagree	22	46	55	84	97	49
Agreement with ca transferred to ges				yo formed b	y IVF and	1
Agree	51	25	9	5	0	24
Neither	19	21	25	8	1	19
Disagree	30	54	65	87	99	57
	24	39	20	12	5	

Among those very few women (6%) who felt they would likely consider surrogacy, the vast majority of them (72%) failed in a follow-up question to indicate the type of circumstances in which such an arrangement would be acceptable. Seventeen percent of this small subset of women said they would consider surrogacy "if it was for a relative"; 11% would "if I knew I was helping people who cannot have children on their own"; and 9% said they would consider it "if I was assured I could keep in contact with the child."

Taken together, these results show that only a very small percentage of women would consider surrogacy under any condition, and only a very small percentage of the women who would consider it would indicate conditions under which they would likely become surrogates.

General Attitudes Toward Surrogacy

General statements were used to test respondents' attitudes toward reasons for surrogacy, the societal impact, and the issue of payment versus non-payment.

Thirty-one percent of respondents believed that "women who become a surrogate do so because of the money," while 24% believed that "women who become a surrogate do so because they genuinely want to help a woman who can't carry the fetus." Forty-three percent of respondents, however, selected a rating midway between these extremes. This suggests

that a large segment of respondents may have been unsure why women become surrogates or believe that both motivations are present.

Among respondents who agreed with Robert and Mika using a surrogate, 45% believed that surrogates want to help women, while only 19% believed that women become surrogates because of the money. Among those who disagreed with Robert and Mika using this approach, 41% believed women become surrogates for the financial benefits.

There was a significant difference in attitudes on this issue between respondents who supported the use of reproductive technologies and those who opposed their use. Respondents who supported the use of the technologies were more likely to believe that women who become surrogates do so to help others, whereas respondents who opposed the use of the technologies were more likely to believe that women who become surrogates do so for the money.

Table 31 shows that of the respondents who believed that money is the primary reason for a woman becoming a surrogate, 46% did not approve of a surrogate receiving payment. However, 32% of these respondents had no problem with a surrogate receiving payment. A similar distribution of responses was apparent for respondents who believed a woman becomes a surrogate because she genuinely wants to help a woman who cannot carry the fetus herself. Forty-one percent had no problem with a surrogate receiving payment, and 35% did not approve of payment to the surrogate, the difference being significant.

Table 31. Perceived Motivation of Surrogates by Whether or Not They Should Be Paid

	Women who become a surrogate do so because of the money (%)	Neither (%)	Women who become a surrogate do so because they genuinely want to help a woman (%)	Row total (%)
No problem with women who become				
surrogates being paid	32	35	41	35
Neither	22	35	24	28
Do not approve of a woman who becomes a surrogate being				
paid	46	30	35	36
Column total	32	44	24	

The results show that although attitudes toward payment and support for surrogate arrangements are linked, it is unlikely that payment would be the principal reason for supporting surrogacy, or that absence of payment would be the principal reason for opposition.

A large majority of respondents disagreed with Robert and Mika using surrogacy, and were unlikely to use surrogacy themselves. Nevertheless, 61% of respondents believed that surrogacy would not have a big impact on society because it would not be used by very many people. In contrast, only 14% of respondents felt that surrogacy would have a big impact because fertile women would be expected to bear children for others. Clearly, the majority of respondents did not believe surrogacy would have a big impact on society. This, however, does not have much effect on their attitude toward surrogacy.

Despite lack of support for the use of surrogacy and unwillingness to use it personally, 46% of respondents said that any person who is infertile should be able to consider using a surrogate to have a baby. This may be related to a widely held value that everyone who wants a child should be able to do so (see Table 32).

Table 32. Agreement with the Statement: "I believe that everyone who wants to have a child should be able to do so" by Support for Surrogacy

	Agree (%)	Neither (%)	Disagree (%)	Row total (%)
Support for surrogacy				
Surrogacy should not be considered	24	36	40	30
Neutral Any person should be able to consider	25	30	19	24
surrogacy	51	34	41	46
Column total	57	12	30	

Fifty-one percent of respondents who agreed that everyone who wants to have a child should be able to do so also agreed that any person should be able to consider surrogacy. However, nearly one-quarter (24%) of these respondents said that people who are infertile should not consider surrogacy. Table 32 also shows that of the respondents who disagreed that everyone who wants to have a child should be able to do so, 41% nevertheless felt that any person who is infertile should be able to consider surrogacy. This indicates that disagreement with a universal right to have a child is not necessarily related to the use of technology, or to surrogacy.

The data also revealed a conflict in attitudes between the general use of surrogacy and agreement with Robert and Mika using surrogacy. Of respondents who believed that any person who is infertile should be able to consider surrogacy, only 51% agreed with Robert and Mika using a surrogate (with IVF using Mika's eggs). Slightly fewer respondents agreed with Robert and Mika when the surrogate would receive payment (41%). So, although 45% of respondents agreed with the general right to use surrogacy, the real measure of agreement would be better estimated at 31% — the level of support for Robert and Mika using surrogacy.

Amniocentesis for Disease

Not only do reproductive technologies involve the use of procedures such as IVF and DI, they also include diagnostic methods such as amniocentesis. Awareness of such prenatal diagnostic methods, attitudes toward their use, and the likelihood of personal use were investigated in the survey.

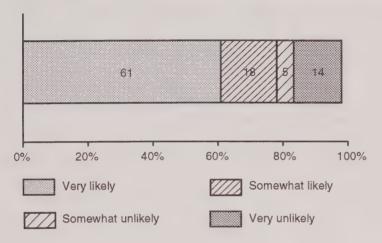
Sixty-nine percent of respondents indicated that they were aware of methods that made it possible to test whether a fetus has a genetic disease or disability. An additional 22% stated: "I think I've heard something about it." Only 8% of respondents stated they were not aware that such technology was available. When asked in a follow-up question whether this type of technology should be allowed, 75% of respondents felt such technology should be allowed and that the decision to test the fetus should be that of the parents. Interestingly, there was a small minority (18%) who felt the technology not only should be allowed but should be required so that parents would be aware of any fetal disease or disability. Only 6% of those surveyed felt that prenatal diagnostic technology should not be allowed.

The high level of support among respondents for the application of prenatal diagnostic methods under certain circumstances was also reflected in their responses to other questions in the survey. For example, respondents were asked how likely it would be for them to test a fetus if they or their partner were at risk of passing along a severe disease. Seventy-nine percent of respondents were at least somewhat likely to undergo testing, as indicated in Figure 20. Virtually the same percentage (81%) were at least somewhat supportive of the option of testing being available for others at risk of passing along a severe disease (even if the respondents would not undergo the test themselves). Thus, the results are very clear — the vast majority of respondents would be prepared to use prenatal diagnosis to test for disease themselves, and to allow others that option.

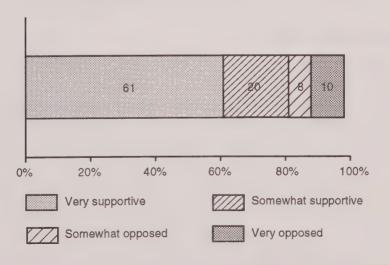
Finally, it would appear that respondents did have somewhat different views concerning the impact that extensive testing would have on society. A list of four possible societal impacts of fetal testing was provided to respondents and they were asked to select the one that best reflected their own opinion. Forty-four percent of respondents felt that the impact would be more pregnancy terminations, while nearly the same percentage (42%)

Figure 20. Use of Amniocentesis to Test for Disease: Respondents' Likelihood of Use and Support for Others' Use

How likely would you be to test a fetus you or your partner was carrying if you were at risk of passing along a severe disease to vour child?



How supportive or opposed would you be of people who are at risk of passing along a severe disease to the child having the option of testing the fetus for disease?



felt that people would be more prepared for a child with a genetic disease or disability. A small percentage (8%) of respondents felt that the most important impact of extensive testing would be increased societal prejudices toward children born with disabilities. Very few respondents (5%) felt that widespread use of the technology would have no societal impact.

Amniocentesis to Determine Sex

Though the issue of sex selection was not investigated in detail in the survey, a few general questions were included to explore respondents' attitudes. Specifically, respondents were asked whether they would use prenatal testing methods "only to determine the gender (sex) of the child." Although expected use of prenatal diagnostic methods to test for disease was quite high, only 20% of those surveyed said they were at least somewhat likely to engage in prenatal testing only to determine the sex of the fetus (see Figure 21). The percentage of respondents who felt others should have the option to test a fetus for the sole purpose of determining its sex was higher (32%), though clearly still a minority.

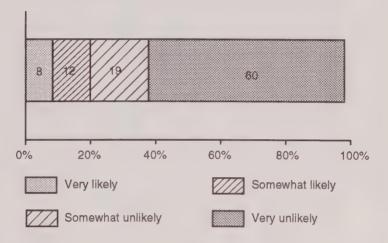
These results indicate that the vast majority of respondents (79%) were not interested in prenatal testing solely to determine sex and the majority of respondents (67%) were unwilling to support this option for others. Although the perceived motivations for gender testing were not explored in the study, respondents were asked whether they would support pregnancy termination if the sex of a fetus was not what the parents had hoped for (see Figure 22). Virtually all of those surveyed (92%) opposed pregnancy termination under these circumstances. It would appear that society as a whole has strong convictions in this area. The solid opposition toward prenatal testing only to determine the sex of the fetus may reflect concerns over the motivations and consequences of applying such techniques.

Pregnancy Termination

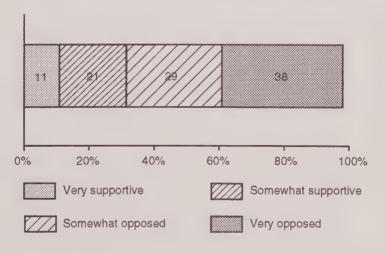
As shown in Figure 22, the highest support for pregnancy termination was found in cases where the fetus is known to have such a severe problem that the child will probably die within the first six months of life. Seventy-three percent of respondents supported pregnancy termination in this case, with a majority (53%) strongly supporting pregnancy termination. The results also show that apparently no distinction was made between pregnancy termination in the case of a severe physical disability and in the case of a severe mental disability. In the case where the fetus is known to be physically disabled to the degree that independent living would not be possible, 59% supported pregnancy termination. In a similar scenario, where the fetus is known to be mentally disabled, 60% supported pregnancy termination. A majority of respondents (52%) also supported pregnancy termination when the fetus is known to be handicapped to the point that the child will have to spend his or her life in a wheelchair.

Figure 21. Use of Amniocentesis to Determine the Gender of the Child: Respondents' Likelihood of Use and Support for Others' Use

How likely would you be to test a fetus you or your partner was carrying only to determine the gender (sex) of the child?



How supportive or opposed would you be of people having the option of testing the fetus only to determine the gender (sex) of the child?



Support for/Opposition to Pregnancy Termination in Different Circumstances Figure 22.

Fetus is known to have such a severe problem that the child will probably die within the first six months of life.

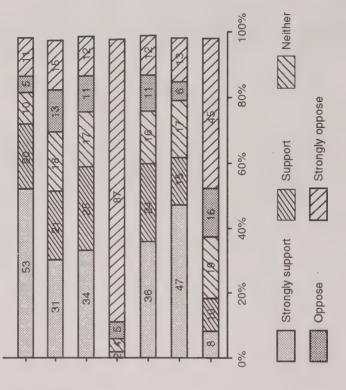
Fetus is known to be handicapped to the point that the child will have to spend his or her life in a wheelchair. Fetus is known to be physically disabled to the degree that independent living will not be possible.

Sex of a fetus is not what the parents had hoped for.

Fetus is known to be mentally disabled to the degree that independent living will not be possible.

Fetus is a result of rape or incest

Pregnancy was unplanned



Respondents 60 years of age or older tended to be more supportive of pregnancy termination in cases where the fetus is known to be physically or mentally disabled or handicapped to the point that the child will have to spend his or her life in a wheel chair. Those 18 to 29 years of age were more opposed to pregnancy termination in these cases. Respondents in Quebec were more supportive, while those in the Atlantic and Prairie provinces were more opposed.

In cases where the pregnancy was unplanned, younger respondents (18 to 29 years of age) were more supportive of termination than older respondents. Residents of the Atlantic provinces had the strongest opposition of any of the regions to pregnancy termination under these circumstances, while those in British Columbia were the most supportive.

Fetal Tissue Research

Despite a high self-reported awareness of new reproductive technologies, 37% of respondents had not heard anything about fetal tissue research. Forty-four percent said: "I think I've heard something about it," and 18% said: "I know quite a bit about that." It would appear that attitudes toward the use of fetal tissue for research are still generally undefined. Respondents were told that "the tissue from an unborn fetus is being used for organ donation or to control some diseases in adults and children." While 34% of respondents believed "that is a positive development and should be encouraged," 52% were undecided.

Among respondents who were aware that research is being conducted using fetal tissue, 46% believed that the research is a positive development and should be encouraged. Among respondents who had never heard of the research, 61% had not developed an opinion on the research.

Through the Marcel conversation respondents were also told that "some people's support or opposition depends on how the fetus became available." Respondents were then provided with specific alternative situations and asked under which circumstance they would support fetal tissue research. Thirty-one percent of respondents said they would support the research if the fetus was going to be aborted anyway. Forty-eight percent said they would support the research if the fetus was "miscarried." Only 18% said they would not support such research under any circumstances.

As one might expect, for the majority of respondents who believed that it is wrong to conduct research on fetal tissue, the issue of where the fetus came from is irrelevant — they would not support the research under any condition. Among respondents who believed the research is a positive development, miscarriage was not necessarily a condition for their support. Fifty-five percent of these respondents would support the research as long as the fetus was going to be aborted anyway.

The data show that attitudes toward fetal tissue research may be related to attitudes toward abortion generally. In the present study, however, the link between pregnancy termination and fetal tissue research

is not particularly strong, as can be seen in Table 33.

Table 33. Support for/Opposition to Pregnancy Termination When the Pregnancy Is Unplanned by Support for Use of Fetal Tissue in Medical Procedures

		mination ned pre		
	Support (%)	Neither (%)	Oppose (%)	Row total (%)
Support for fetal tissue use in medical p	rocedures			
Positive development and should be				
r ositive development and should be		0.0	26	34
encouraged	54	39		
·	54 41	54	56	52
encouraged .	•			52 13

Screening

Screening participants for reproductive technology procedures involves allowing or disallowing individuals with certain attributes to participate. Currently, sperm donor clinics use screening procedures for donors; some consider medical criteria and some consider social criteria. Some adoption clinics also use complicated screening processes to determine eligibility, taking into account social attributes, among other criteria.

The results of the survey show that there is no majority support for screening access to reproductive technologies based on income, marital status, ability to stay home with the baby, or membership in a mainstream religious denomination (see Figure 23). The highest support for disallowing access was for people who are not married, with 26% supporting and 48% opposing people in this situation having access.

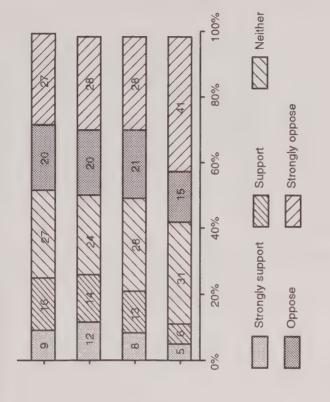
In general, would you support or oppose screening of the following groups?

People with low income.

People who are not married.

People who cannot stay home with the baby.

People who are not of a mainstream religious denomination.



Twenty-five percent supported screening people with low income, while a majority of respondents (63%) opposed a couple on welfare having or adopting a child. These results show that there was some differentiation in the view of respondents between low income and welfare.

Overall, only a minority of respondents (11%) supported screening those not of a mainstream religion. As one might expect, support for such screening differed according to scores on the religiosity index. Of respondents who rated low on the religiosity index, 4% (compared to 11% nationally) supported screening on this factor, whereas 19% of respondents who rated high on the religiosity index supported screening on this factor.

There was a high percentage of neutrality for all four questions concerning screening access, ranging from 24% for people who are not married, to 31% for people who are not of a mainstream religious denomination. Ten percent of respondents were neutral in all four cases.

Specific Scenarios

A series of questions was asked that incorporated the principal technologies studied (insemination, IVF, and surrogacy) into specific scenarios of use. Each scenario and the level of support and opposition toward each are presented in Figure 24.

Overall

The results reported in Figure 24 suggest that levels of support and opposition to the use of technologies vary depending on the user of the technology. Recorded levels of support were highest for those scenarios that present a heterosexual couple using the technology, and clearly lowest for those scenarios involving a homosexual couple. Further analysis indicated that this variation in the levels of support according to the user of the technology is strongly related to attitudes toward ideas of what constitutes a family. For example, among those who strongly opposed a lesbian couple using insemination, 84% did not consider a homosexual couple with children to be a family.

The results also show contradictions between respondents' attitudes toward the right of everyone to have a child and support for the use of reproductive technologies in specific cases. Fifty-eight percent of respondents believed that "everyone who wants to have a child should be able to do so." Of this 58%, 24% opposed a couple using DI. Thirty-eight percent of these same respondents opposed a single woman using DI, and 65% opposed a lesbian couple using this method of assisted conception.

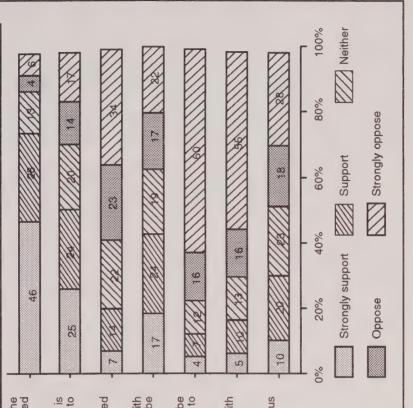
There were similar differences in the responses between overall support for and opposition to the technologies and the use of reproductive technologies in the specific cases. Of the respondents who supported the use of reproductive technologies generally, 69% supported the use of DI by a couple, 41% supported its use by a single woman, and 21% supported its use by a lesbian couple. Clearly, attitudes toward the use of reproductive

Support for/Opposition to Use of Reproductive Technologies Figure 24.

A couple who cannot conceive unless the egg and the sperm are brought together outside the body and placed in her womb.

inseminated with the sperm of an anonymous donor to A couple who cannot conceive unless the woman replace her partner's sperm. A single man who hires a surrogate to be inseminated with his sperm so he can father a child.

the man's sperm because the woman's health would be A couple who hires a surrogate to be inseminated with endangered if she were to become pregnant. A gay male couple who hire a surrogate to be inseminated with the sperm of one or both of the men to bear them a child. A lesbian couple who have one of them inseminated with an anonymous donor's sperm so she can bear a child. A single woman who is inseminated with an anonymous donor's sperm so she can have a child



technologies are related to respondents' perceptions about different possible users.

Insemination

The level of support for a couple using DI (49%) was similar to the level of agreement seen for the use of DI by Mika and Robert (54%). However, support was lower for a single woman using DI (30%), and only 15% would support a lesbian couple using DI to bear a child. As with other questions addressing DI, those respondents who were lower on the religiosity index were more likely to support the use of DI, while those higher on the index were more likely to oppose its use.

IVF

Support for IVF using the couple's gametes was higher than any other situation by 25%. Ninety-four percent of respondents who strongly supported a couple's use of IVF also agreed with Robert and Mika using this method.

Table 34. Scores on the Religiosity Index by Support for the Use of IVF

	Scores on the religiosity index					
	Very high (%)	High (%)	Moderate (%)	Low (%)	Very low (%)	Row total (%)
Support use of IVF	55	68	77	82	83	76
Neither	22	20	15	12	11	15
Oppose use of IVF	23	13	8	6	6	9
Column total	10	16	26	28	21	

There were significant variations in support of the use of IVF according to scores on the religiosity index (see Table 34). A majority of those high on the religiosity index supported the use of IVF; however, their overall level of support was significantly lower compared to those who were low on the religiosity index.

Surrogacy

Three scenarios involving surrogate arrangements were examined: heterosexual couple; homosexual couple; and single person hiring a surrogate (see Figure 24). Support for the use of a surrogate by either a single man or a gay couple was significantly lower than for the couple who face health risks. In general, who is to use a reproductive technology is an important component in determining whether there is support. Support for a heterosexual couple having children, adopting children, and using

reproductive technologies was consistently higher, compared to support of users such as a single parent or a homosexual couple. This user effect relates back to respondents' concepts of a family, and what defines a family, as well as their attitudes about the ideal structure for a family. Such attitudes, as well as opinions on the reproductive technologies themselves, contribute to differences in support for different potential users.

The type of technology is also important in determining acceptability. Scenarios involving a couple using IVF with their own gametes and another that discussed DI both received higher support than the use of surrogacy using the man's sperm. However, the support for a couple in all cases is higher than support for a single woman, single man, or homosexual couple using any type of reproductive technology. Support for a single woman, however, is the highest of these latter three situations.

Cost

Beyond the ethical and moral decisions associated with reproductive technologies, the issue of cost — who will pay for the technologies? — is important and no doubt influences people's decisions about support or opposition. The survey investigated who respondents thought should pay for the technologies, and how the dollars should be allocated.

With respect to who should pay for the new technologies, the response options presented to respondents, as well as the percentage in the survey who endorsed each option, are presented in Table 35.

There is no clear indication as to who respondents think should be responsible for the cost of the technologies, and it is difficult to draw conclusions from the responses.

The demographics show variation by age and income. This variation was divided between the provincial government paying for the full cost of the services, the individual paying for the full cost of the treatment, or the individual paying for part of the cost of the treatment. Younger adults (under 30 years of age) were more likely to support the provincial government paying for the full cost or part of the cost of the services and were significantly less likely to support the individual paying for the total cost. Alternatively, respondents 55 years of age and over were less likely to support the provincial government paying the cost, and more likely to support the option of the individual paying for the total cost (36% compared to 22%).

Respondents with no or low personal income were more likely to support the provincial government paying the full cost, and were also less likely to support the individual paying the full cost. Perhaps not surprisingly, the option of the individual paying the full cost was preferred by respondents with a higher income. The same trend was seen for variation by annual household income, although the higher income group was more likely to favour the provincial government paying part of the cost of the technologies.

Table 35.	Who Should Pay for the Cost of Re	eproductive
Technolog	ies?	

Technologies?		
	(%)	
The provincial health care system should pay for the cost of reproductive technology procedures because it is a medical treatment.	14	
The individual should pay the total cost of the reproductive technology procedures because it is not a medical treatment.	22	
The health care system should pay only part of the cost of the technologies.	22	
Ideally, the provincial health care system should pay all the costs, however, there are other priorities right now.	20	
The provincial health care system should pay for research on reproductive technologies, but not the cost of treatment.	19	
No response.	3	

Attitudes toward the use of reproductive technologies were related to attitudes toward who should pay for the use of these technologies. Respondents who supported the use of reproductive technologies were generally more likely to support the provincial government paying for the whole or part of the cost of the technologies. Respondents who were opposed to the use of reproductive technologies were significantly more likely to support the individual paying the full cost (73% compared to an overall sample average of 22%).

The other aspect of cost that was investigated was the allocation of resources between two purposes: research into the causes of infertility to find treatments and preventive measures versus developing new technologies that enable infertile women and men to have children. Respondents were provided with a hypothetical \$1 000 and asked to allocate these funds between the two options. The results show that respondents would allocate approximately 60% of funds to finding treatments and preventive measures and almost 40% to developing new technologies. Allocation of funds differs somewhat, depending on who respondents think should be responsible for bearing the cost of the technology.

Table 36 shows that the allocation toward prevention and research into the causes of infertility was strongest among respondents who believed that the individual should pay the full cost of the technologies. Respondents who supported the provincial health care system paying the full cost of the technologies were more likely to propose an approximately equal allocation between research into cause and prevention, and developing the technologies.

Table 36. Allocation of Resources Toward Researching Causes of Infertility Versus Developing New Technologies by Who Respondents Felt Should Pay

	(\$)
Provincial health care system should pay the full co	ost
Researching the causes of infertility	517.17
Developing new technologies	482.82
Individual should pay the full cost	
Researching the causes of infertility	729.14
Developing new technologies	270.85
Provincial health care should pay only part of the c	ost
Researching the causes of infertility	580.17
Developing new technologies	419.82
Provincial government should pay the full cost, but	
there are other priorities	
Researching the causes of infertility	571.80
Developing new technologies	428.75
Provincial health care should pay for research, but	not
the cost of treatment	
Researching the causes of infertility	593.13
Developing new technologies	406.86

Summary of Results

The objective of the following Summary of Results is to provide a further analytic overview of the data presented in General Values and Attitudes, and Attitudes and Opinions Directly Related to New Reproductive Technologies.

The descriptive report highlighted the demographic and attitudinal variations where significant. This bivariate analysis presented one part of a complex picture of the trends and groupings within the data set. To add to the understanding of the diversity and consistency within the data, multivariate analysis techniques were employed to summarize the data. The two primary techniques employed were factor analysis and cluster analysis. The purpose of each of the techniques and the interpretation of the results in the context of the objectives of the study are described below.

Factor Analysis

Purpose

Factor analysis provides a method of identifying trends and patterns in respondents' answers to questions. Factor analysis is based on the correlations (relationships) among responses to a set of questions. In this research for the Royal Commission, factor analysis was used to discover reliable factors that were present within the data set. Thus the analysis reduces the larger data set into a smaller number of factors, which enables a greater understanding of how the questions within the survey are inter-related.

Methodology

As discussed, factor analysis is based on correlations between responses, that is, the degree to which responses to one question can be predicted, given the respondents' answers to another question. If many respondents agree to one question and also agree to another question, while the rest of the respondents disagree to both questions, then the responses to the questions are highly correlated.

Factor analysis was used for this study to help understand the underlying attitudes that could be reliably assessed and related to specific reproductive technologies. The development of the analysis required several trials and a detailed examination of the relevant data in the questionnaire. Because of the nature of the analysis, only questions that were answered using a scaled answer category format were used. In addition, the decision was made not to include any questions asking about the use of specific types of reproductive technologies, given that the objective of the analysis is, in part, to explain attitudes toward technologies such as IVF. Through iterative runs of the analysis procedure, including and excluding various questions and examining the impact of such changes, factors emerged.

It should be pointed out that the factor analysis is based only on the results of the mail survey. There may be other factors that contribute to an individual's decision to support or oppose specific technologies, or technologies in general; however, these attitudes may not have been reliably represented by specific items in the survey instrument. Reliability within this context is related to the number of variables present that are related to a specific hypothetical factor. Therefore, there may be attitudinal factors related to individual items in the survey that are relevant to an individual's opinions, but they were not included in the final analysis because they did not contribute to the development of statistically reliable factors.

A summary of the factor analytic results is provided below.

Results of the Analysis

The results show there are three primary factors within the data set:

- religious conviction the degree to which a respondent believes in the importance of religion;
- technology the degree of support and trust a respondent has in technological development; and
- technology related to having children the degree to which a respondent supports or opposes the use of technology to have children.

The questions that comprise each of the factors are presented below.

(a) Religious conviction

- It would do Canadians a lot of good if we had more religious values in our lives.
- We have reached a time when we all need to reach out to God for help.
- It is important that children be raised with strong religious values.
- Declining role of religious teachings in the education system (rated positive/negative).

(b) Technology

- I worry that medical science is moving too fast for our society to maintain control over its use.
- I am generally fearful of the impact of scientific developments.
- I am generally (pessimistic/optimistic) about how helpful scientific developments can be.
- I (am fearful of/welcome) new scientific developments.

(c) Technology related to having children

- All known technologies should be made available to help people who have difficulties having a child.
- If the technology to assist people to have children is available, people should have the right to use it.
- Having children is so important that technology should be used.
- I believe that everyone who wants to have a child should be able to do so.

The first factor is one that defines an individual's intensity of religious conviction. Several questions within the survey assessed respondents' beliefs in religion and the role of religion in society. As expected, the responses to these questions were strongly related.

The second factor represents opinions about the role of technology within society. One side of the spectrum represents those respondents who are fearful and pessimistic about technological developments, while those on the other side of the scale are not fearful and they welcome scientific developments.

The third factor is dominated by attitudes toward the use of technology to have children. The analysis shows that there is a relationship between the questions that ask about the role of technology in assisting people to have children. The importance of children is an important component of this factor. Respondents who rated low, however, do not necessarily believe that children are not important; rather, they oppose the use of technology to have children.

That three factors were produced was an interesting outcome of the factor analysis. Attitudes toward technology might be expected to be strongly related to attitudes toward the use of technology to assist people to have children. However, it was found that although these factors demonstrated a low level of correlation, there was a meaningful divergence between them. Attitudes toward technology in general were not strongly correlated with attitudes toward using technology to have children, hence the analysis produced two distinct factors.

Interpretation

It is very important to recognize the distinction between the two technology factors. While the religion factor is important, it is not surprising that the factor was produced. Although attitudes toward religion in our society are diverse, a number of items in the survey addressed this issue and people were generally consistent in their religious beliefs.

There was also a low-level correlation, or relationship, between the religion factor and attitudes toward the technology and children factor.

That a technology and children factor was produced as a distinct factor from the technology factor reveals that responses to the two dimensions are not necessarily consistent. Respondents may oppose technology and also oppose technology used to assist people to have children, or they may support technology to assist people to have children because children are so important in our society but nevertheless be fearful/pessimistic about the impact of technology in general. In addition, respondents may support technology and support its use in assisting people to have children, or they may oppose its use for assisting people to have children. We found there was a separate decision process for respondents on the acceptance of technology related to having children and attitudes toward general technological developments.

Cluster Analysis

Purpose

The purpose of cluster analysis (segmentation analysis) was to identify segments of the population based on commonly held attitudes that were reliably represented. This analysis provides the Royal Commission with a better understanding of the links and variations in attitudes related to support for or opposition to new reproductive technologies.

Methodology

Clusters were developed through an analysis of responses to a series of selected questions. Each individual respondent was assigned to the cluster containing responses most similar to those of the respondent. Using this method, all respondents were assigned to a particular cluster.

Once clustering has been completed, the analysis facilitates interpretation of the variations among the clusters. In addition, it is possible to develop a demographic and attitudinal profile for each of the clusters or segments. The questions used to develop the clusters in this study were based on the results contributing to the factor analysis; that is, those related to religious conviction, attitudes toward technology, and attitudes toward the role of technology in assisting people to have children.

Results

Four clusters were produced from the cluster analysis. Each revealed unique characteristics and demographics, as well as attitudes toward reproductive technologies. The following table presents the degree to which each cluster has strong agreement with the three dimensions.

Two segments of the sample held strong religious convictions and two segments were revealed to have few or no religious beliefs. Respondents in one cluster agreed strongly with the use of technology to have children, while those in the other disagreed with the use of technology for this purpose. The variation among the groups is reflected in attitudes toward the use of reproductive technologies.

Table 37. Results of Cluster Analysis: Clusters by Key Dimensions from the Factor Analysis

Cluster	Religion	Technology	Technology and children
	strong	moderate	strong
	weak	strong	strong
3	weak	moderate	weak
4	strong	low	weak

Summary by Cluster⁵

The following is a brief description of each of the segments and their opinions and attitudes on issues not directly related to reproductive technologies. Each is described in terms of their propensity to be "more likely to ..." hold a specific attitude or opinion as represented by a question in the survey. This phraseology means that the respondents in the cluster show a higher than expected percentage of agreement or disagreement. The attitudinal variations represent key dimensions that were not reliably represented in the factor analysis, but may be important in explaining the differences among the groups.

Cluster 1: Moderate Group (32% of Respondents) More likely to ...

- believe a homosexual couple with children is not a family
- agree that even though there are some processes of human life, such as birth, that we increasingly know more about, we are not meant to alter these processes
- agree that the rights and freedoms of the individual are always more important than the rights of the community
- be willing to pay more taxes to provide adequate food, shelter, and health care for those Canadians who can't provide it for themselves
- say that religion and family have had a strong influence in their lives

This segment was composed of a higher than average percentage of respondents who were ...

- women aged 50 and over
- less educated
- Catholic
- residents of Atlantic provinces

Respondents in the first segment of the sample had a strong belief in religion and were strong supporters of the use of technology to assist people to have children. However, they were slightly more conservative in their support for technology in general. This segment valued the rights of the individual, and these respondents were willing to help the less fortunate. They did not have any prejudices against the role of women in society, although they did not accept homosexuality.

Cluster 2: Technologist Group (32% of Respondents) More likely to ...

believe a homosexual couple with children is a family

- have a short-term goal of being promoted or becoming more financially secure
- disagree that women who work outside the home are not as good mothers as those who do not work outside the home
- not be willing to pay more taxes to help the less fortunate
- believe homosexual relationships are acceptable
- respond that their career and education have had a strong influence in their lives

This segment was composed of a higher than average percentage of respondents who were ...

- under the age of 40
- educated
- single
- atheist/agnostic

This segment is composed of those respondents who had very weak religious convictions and they strongly supported the use of technology in general as well as specifically for assisting people to have children. They were younger, they tended to be a more educated segment, and they held what may be considered "progressive" attitudes (such as their acceptance of homosexuality and the role of women). Their lower level of education (compared to the next group) can probably be attributed to their younger age.

Cluster 3: Sceptical Group (15% of Respondents) More likely to ...

- agree that a homosexual couple with or without children is a family
- disagree that even though there are some processes of human life that we know more about, we are not meant to alter these processes
- disagree that the rights of the individual are always more important than the rights of the community
- disagree that the ideal family has a mother, father, and one or more children

This segment was composed of a higher than average percentage of respondents who were ...

- men
- 40 to 49 years of age
- highly educated

- atheist/agnostic
- · residents of British Columbia

On the three principal dimensions, this cluster was weak in its religious convictions, was somewhat sceptical of technology, and was opposed to the use of technology to assist people to have children. The respondents were more likely to be highly educated, with a belief in the rights of the community, but they shunned traditional concepts (such as ideas about family structure).

Although the demographic variations showed that the Sceptics group was more likely to fall between the ages of 40 and 49, the degree of variation was not as significant as the variations among the other segments for the age variable.

Cluster 4: Traditional Group (21% of Respondents)

More likely to ...

- believe that a single man or a single woman with children is not a family
- agree that we should not alter human processes
- agree that mothers who stay home are better than those who do not stay home
- disagree that individual rights are more important than the rights of the community
- believe that homosexual relationships are unacceptable
- believe that religion has had a strong influence in their lives

This segment was composed of a higher than average percentage of respondents who were \dots

- 60 years of age or over
- married
- Protestant

In terms of the defining characteristics, this segment held strong religious beliefs, feared technology, and was opposed to the use of technology to assist people to have children. The other attitudinal variations highlighted above show that these respondents also held traditional attitudes toward the role of women and family, and that they had a strong belief in the rights of the community.

Application to Reproductive Technologies

Summary of Results

The results showed significant variation among the clusters on the use of reproductive technologies. The Technologists were the most supportive followed by the Moderates. The Sceptics were generally unsupportive with

the important exceptions of prenatal diagnosis and fetal tissue research. The strong religious segment (the Traditionalists) was consistently opposed to all types of reproductive technologies, compared to other segments.

Based on the segmentation, there were two types of supporters: (a) those who were younger and supported reproductive technologies because of their general support of the use of technology (i.e., the Technologists); and (b) those who tended to be older and support reproductive technologies because of the importance they placed on having children (i.e., the Moderates). Although members of the second of these two groups were reluctant to accept technology in general, they placed a sufficiently high value on children to overcome this.

It seems likely that the two segments more likely to oppose reproductive technologies had different reasons for doing so. Among those in the well-educated group, who showed weak religious convictions (i.e., the Sceptics), opposition to reproductive technologies probably developed from a general fear of how the technologies will be used and concern about the impact of the technologies on society. Those in the other segment that opposed the use of reproductive technologies, the Traditionalists, may have based their opinions on their strong religious values and general fear of technology. While religion plays an important interpretive role, it may also represent a broader set of values, such as tolerance and traditional attitudes.

The segmentation helps to explain some of the observed differences in opinions toward the use of reproductive technologies, and it shows the complexity of determining what is related to generating these opinions. For example, religion alone cannot serve as an adequate predictor because, of two sets of respondents with strong religious beliefs, one demonstrates support of and one shows opposition to the technologies. Attitudes toward the use of technology in general are also insufficient to explain how people react to reproductive technologies.

Segmentation is a useful tool for examining the clusters of attitudes within the data. It is not meant as the definitive measure of support and opposition, but rather as a descriptive tool which is based on the results of the research. There is no doubt that other factors may contribute to individuals' support for or opposition to the technologies based on the values and attitudes they hold.

For each type of reproductive technology tested, variations among the clusters have been examined. Each section below presents the results of analyses conducted for each technology. The proportions of all respondents who were clustered into each of the four groups were Moderates 32%, Technologists 32%, Sceptics 15%, and Traditionalists 21%. This should be borne in mind when assessing the results, as each of the four groups is not equal in size. For example, there were twice as many people within the Moderate group as in the Sceptics group.

General Assessments of Reproductive Technologies

Awareness

Table 38 presents the variation of awareness of new reproductive technologies shown by respondents in each of the four clusters.

Table 38. Cluster Analysis: Awareness of New Reproductive Technologies

	Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
Very aware	22	30	37	31	29
Somewhat aware	58	59	52	55	57
Not very aware	16	10	10	12	12
Not at all aware	5	1	0	2	2
Column total	33	32	14	20	

As Table 38 shows, the Sceptics had the highest level of awareness of the technologies, while the Moderates had the lowest level of awareness. Another assessment of awareness is whether the respondents were familiar with someone who had used the reproductive technologies. There were no differences across the groups on this variable. Previous research has shown that respondents tend to overestimate their awareness so this caveat should be kept in mind.

Availability

As presented in Table 39, attitudes toward the availability of assisted conception techniques differed significantly across the four clusters. Clearly, Technologists strongly believed that the reproductive technologies should be available, while the Traditionalists were more likely to believe the technologies should not be available. Note that the difference between the Sceptics and the Traditionalists was not very large with respect to declaring that the technologies should not be available. The Moderates showed a relatively high level of support for the availability of the technologies. It is interesting that Traditionalists and Moderates, though both held strong religious beliefs, differed in their attitudes about availability of reproductive technologies.

Support/Opposition

Table 40 depicts the variation of support for and opposition to reproductive technologies.

Perhaps not surprisingly, the attitudes of each of the segments on support for/opposition to the technologies was very similar to the pattern

Table 39. Cluster Analysis: Attitudes Concerning Availability of Reproductive Technologies

	Moderate 1	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
Should be available	64	84	48	32	62
Neither	24	12	29	38	24
Should not be available	12	4	23	30	15
Column total	33	33	14	20	

Table 40. Cluster Analysis: Support for Versus Opposition to the Reproductive Technologies

	Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
Strongly support	23	43	10	6	24
Somewhat support	45	44	35	27	40
Neither	23	11	27	26	20
Somewhat oppose	8	2	19	26	11
Strongly oppose	2	0	9	15	5
Column total	32	33	15	20	

seen for support for availability of the technologies. The most supportive segment, by a significant margin, was the Technologist group (87%). Fewer, though still a majority, of Moderates (68%) supported the use of reproductive technologies.

Fear

The Traditionalists were significantly more fearful of the technologies than all the other groups, with the Technologists being least fearful (see Table 41). The Moderates and the Sceptics both fell between these two extreme groups; nearly half of the respondents in both these groups expressed at least some fear of the new reproductive technologies.

Opinions on Specific Technologies

Table 42 presents the variation of the segments in the case of DI and IVF as tested using the Robert and Mika scenario.

As Table 42 shows, the Technologists were more supportive of DI and IVF than the other segments. In fact, 77% of the Technologists agreed at

Table 41. Cluster Analysis: Fearfulness Toward Reproductive **Technologies**

	Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
Very fearful	4	<1	6	15	5
Somewhat fearful	41	14	39	51	34
Not very fearful	43	57	41	28	44
Not fearful at all	12	29	14	6	17
Column total	32	33	15	20	

Table 42. Cluster Analysis: Attitudes Toward DI and IVF in the Robert and Mika Scenario

DI	Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
Agree totally	29	48	23	10	30
Agree somewhat	27	29	22	17	25
Neither	21	13	19	20	18
Disagree somewhat	13	8	18	19	13
Disagree totally	10	3	18	35	14
Column total	32	33	15	20	

Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
57	73	44	31	55
26	19	25	33	25
13	7	14	16	11
3	1	11	8	4
2	1	6	12	4
33	33	14	20	
	57 26 13 3 2	(%) (%) 57 73 26 19 13 7 3 1 2 1	(%) (%) 57 73 44 26 19 25 13 7 14 3 1 11 2 1 6	(%) (%) (%) 57 73 44 31 26 19 25 33 13 7 14 16 3 1 11 8 2 1 6 12

least somewhat with the use of DI, and 92% of respondents in this segment agreed (totally or somewhat) with IVF.

The Moderates showed the next highest level of support for both types of assisted human conception. For both DI and IVF, a majority of respondents in this segment agreed with Robert and Mika's use (56% supported DI, and 83% supported IVF).

Forty-five percent of the Sceptics supported DI, compared to 77% of the Technologists. Similarly, 69% of the Sceptics agreed with Robert and Mika's use of IVF, whereas 92% of Technologists agreed with this use. Traditionalists showed only 27% agreement with DI — markedly lower than any of the other groups. Interestingly, for IVF — where the gametes of the couple are used — support from Traditionalists was relatively high (64%).

In vitro fertilization received the highest level of support compared to the other technologies for all four segments of respondents. This is reflective of the aggregate results, which also showed that agreement with the use of IVF was higher than agreement with the use of other methods of assisted conception. As discussed previously, reasons for the high agreement appear to be related to opinions toward DI, which uses sperm from a man outside the relationship.

Surrogacy

Table 43 presents the opinions of respondents in each of the segments for the three variants of surrogacy tested through the Robert and Mika scenarios.

Across all four groups, support was low for surrogacy of any kind. Within this overall picture, the results of the segmentation analysis for surrogate arrangements mirror those for DI and IVF. The Technologists had the highest level of support, with the highest being 46% in agreement with Robert and Mika using surrogacy in the case of another woman carrying the baby (no payment mentioned). In all cases, the Moderates had the second highest level of agreement, although still under one-third agreed, followed by the Sceptics and then the Traditionalists.

Table 43. Cluster Analysis: Attitudes Toward Three Surrogacy Scenarios (Robert and Mika)

Surrogacy using Robert's sperm for insemination of the surrogate who contributes the egg

	Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
Agree totally	7	15	7	3	9
Agree somewhat	14	21	10	6	14
Neither	22	23	18	12	20
Disagree somewhat	25	24	24	18	23
Disagree totally	31	17	41	61	34
Column total	33	32	14	20	

Table 43. (cont'd)

IVF of Robert's sperm and Mika's egg, and embryo transfer to surrogate for gestation, no payment mentioned

	Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
Agree totally	12	19	9	3	12
Agree somewhat	21	27	14	8	19
Neither	21	22	18	13	19
Disagree somewhat	21	19	23	21	20
Disagree totally	25	13	36	55	29
Column total	33	33	14	20	

IVF of Robert's sperm and Mika's egg, and embryo transfer to surrogate for gestation, with payment

	Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
Agree totally	8	14	7	2	9
Agree somewhat	17	21	12	6	15
Neither	20	23	16	12	19
Disagree somewhat	20	21	20	17	19
Disagree totally	34	21	45	63	37
Column total	33	33	14	20	

A brief examination of the percentage who disagreed with surrogacy showed that the Traditionalists had the strongest levels of disagreement, followed by the Sceptics, the Moderates, and, finally, the Technologists. This showed that the variation in the levels of agreement were not simply due to a higher percentage of undecided or neutral respondents for any segment. In fact, the degree of neutrality is exactly related to the pattern in percent agreement: the Technologists had the highest level of neutrality, followed by the Moderates, the Sceptics, and, finally, the Traditionalists.

Overall, these percentages show that surrogacy is much less accepted than IVF or DI. Acceptance is slightly greater if the gestational woman does not contribute the egg, but simply carries the genetic child of both members of the couple.

Amniocentesis for Disease

The Sceptics had the highest awareness of amniocentesis (80%), while the Moderates had the lowest level (62%). There was little variation in opinions on whether the technology should be available, with support for availability ranging from 72% among the Traditionalists to 80% among the Technologists.

Attitudes toward prenatal diagnosis to determine if genetic disease was present in the fetus were examined for the four segments (see Table 44).

Table 44. Cluster Analysis: Support for Amniocentesis to Test for Disease

	Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
Very supportive	57	72	71	47	42
Somewhat supportive	22	16	17	26	20
Somewhat opposed	9	5	5	13	8
Very opposed	12	8	7	14	10
Column total	33	32	14	20	

Overall, a strong majority in all groups (73% to 88%) were at least somewhat supportive of testing for genetic disease, with even the Traditionalists showing majority support. These results of support for prenatal diagnosis in the case of testing the fetus for disease vary from the pattern observed for the previous technologies examined in that both the Technologists and the Sceptics had strongest support for prenatal diagnosis in this case. This is in contrast to the fact that Sceptics have consistently shown stronger disagreement than average with reproductive technologies. As noted previously, Sceptics tended to be non-religious, sceptical of technology, and generally opposed to the use of technologies to assist people to have children. Prenatal diagnosis appears to be differently viewed by this group and was more accepted than other uses of technology.

Amniocentesis to Determine Sex of Fetus

As shown in Table 45, overall, a majority in each group (61% to 80%) opposed using amniocentesis to determine the sex of the fetus. Within this context, the Technologists showed the highest support for using prenatal diagnosis to determine the sex of the child (39%), followed by the Moderates (36%), the Sceptics (27%), and the Traditionalists (21%). The differences among the segments were not as wide as observed for the other specific types of technology, with the majority of respondents in all groups being opposed to the use of genetic testing only to determine the sex of the fetus.

Table 45. Cluster Analysis: Support for Amniocentesis to Determine Sex of Fetus

	Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row tota (%)
Very supportive	12	16	10	4	11
Somewhat supportive	24	23	17	17	21
Somewhat opposed	30	30	29	31	30
Very opposed	35	31	44	49	38
Column total	33	33	14	20	

Fetal Tissue Research

Opinions on fetal tissue research showed the same pattern evident for the questions on amniocentesis. Consistently, the Sceptics had a higher level of awareness than the other segments. Knowledge of fetal tissue research was no exception: almost three out of ten of the Sceptics had heard about fetal tissue research, compared to 22% of the Traditionalists, 18% of the Technologists, and 11% of the Moderates. This relatively low level of awareness suggests that for the majority of respondents, opinions given on this topic were not based on much information.

There was significant variation in attitudes toward using fetal tissue in medical procedures (e.g., organ donation to control some diseases). The Traditionalists were the least supportive, while the Technologists were the most supportive. Forty-nine percent of respondents in the Technologist group believed the research should be encouraged, followed by 40% of the Sceptics, 31% of the Moderates, and 16% of the Traditionalists. It is important to note, however, that the largest percentage in each group were by far those who said they did not know if they supported or opposed the use of fetal tissue in medical procedures (see Table 46).

The two non-religious segments had the highest level of support, while the two religious segments were more likely to oppose fetal tissue research. Similarly, the Technologists and the Sceptics were the least likely to say they would not support fetal tissue research under any circumstances (12% and 16%, respectively, compared to an average of 18%).

Termination of Pregnancy

It was expected that the strongest support for pregnancy termination would be derived from the Technologists and the Sceptics (i.e., the less religious groups), and an analysis of the responses confirmed this expectation (Table 47).

Table 46. Cluster Analysis: Use of Fetal Tissue in Medical Procedures

	Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
Positive development and should be encouraged	31	49	40	16	35
Don't know if support or oppose	57	47	51	54	52
Wrong to use fetal tissue	12	4	8	30	13
Column total	33	32	14	20	

It is clear that, overall, a majority support pregnancy termination for those scenarios describing severe problems with the fetus or when the fetus is a result of rape or incest. Considering these scenarios only, it is clear that the Traditionalists were much less supportive of pregnancy termination than either the Technologists or Sceptics. The Traditionalists also demonstrated lower levels of support than the Moderates in all these cases except when the fetus is the result of rape or incest. Finally, both the Technologists and the Sceptics showed similar high levels of support for pregnancy termination when there is a severe problem with the fetus or the fetus is the result of rape or incest.

Scenarios with Use of Reproductive Technology by Different Groups

Support for the use of reproductive technologies in specific scenarios varied significantly among the segments and demonstrated similar patterns to those observed for the situation-specific scenarios. However, some of the specific scenarios involved the use of reproductive technologies by a single woman, a single man, a gay couple, and a lesbian couple. These scenarios challenge the support of the Moderates because of their views on the importance of a family and what defines a family. Although the results showed that the Moderates and the Technologists were generally the most supportive, the margin of difference between the Moderates and the Sceptics was not as wide as expected. In the case of a gay male couple and a lesbian couple, the Sceptics were actually more supportive of the use of the technologies than the Moderates. Table 48 shows the percentage of support for each of the scenarios.

Table 47. Cluster Analysis: Support for Pregnancy Termination Under Differing Circumstances

		Segn	nent		-
	Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
Scenario					
When the fetus is known to have such a severe problem that the child will probably die within the first six months of life	70	87	86	54	74
When the fetus is known to be handicapped to the point that the child will have to spend his or her life in a wheelchair	49	60	65	40	53
When the fetus is known to be physically disabled to the degree that independent living will not be possible	54	69	73	45	60
When the sex of a fetus is not what the parents had hoped for	2	2	2	2	2
When the fetus is known to be mentally disabled to the degree that independent living will not be possible	56	70	73	44	60
When the fetus is a result of rape or incest	55	75	77	51	64
When the pregnancy was unplanned	10	27	31	9 ,	18
Column total	33	33	14	20	

The Technologists were consistently more likely to support the use of reproductive technologies in each of the scenarios. The Moderates were also more likely to be supportive, except in the use by a gay male couple and a lesbian couple.

Table 48. Cluster Analysis: Support for Use of Reproductive Technologies Under Different Circumstances

	Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
A couple who cannot conceive unless the egg and the sperm are brought together outside the body and placed in her womb	76	90	65	56	75
A couple who cannot conceive unless the woman is inseminated with the sperm of an anonymous donor to replace her partner's sperm	49	72	41	20	50
A single man who hires a surrogate to be inseminated with his sperm so he can father a child	9	35	16	5	21
A couple who hires a surrogate to be inseminated with the man's sperm because the woman's health would be endangered if she were to become pregnant	41	60	34	15	41
A gay male couple who hire a surrogate to be inseminated with the sperm of one or both of the men to bear them a child	7	21	11	1	11

	Moderates (%)	Technologists (%)	Sceptics (%)	Traditionalists (%)	Row total (%)
A lesbian couple who have one of them inseminated with an anonymous donor's sperm so she can bear a child	10	28	16	2	15
A single woman who is inseminated with an anonymous donor's sperm so she can have a child	29	50	23	7	30
Column total	33	33	14	20	

Cost

Attitudes toward who should be responsible for the cost of the reproductive technologies varied among respondents by segment. Twenty-one percent of the Moderates, who were likely to be supportive of the use of the technologies, believed the provincial health care system should pay all the cost of the technologies, compared to an overall average of 15%. Seventeen percent of the Technologists believed the provincial health care system should pay all of the cost for technologies. An additional 22% of Moderates and 26% of Technologists felt that the health care system should pay part of the cost of the technologies. Only 8% of Sceptics and 5% of Traditionalists felt provincial health care should pay all the cost of the technologies, though 20% of each of these groups felt that the provincial health care system should pay part of the cost of the technologies. As might be expected, comparatively large percentages of the Sceptics (35%) and the Traditionalists (41%) believed the individual should pay the full cost of the technologies (compared to 23% of the total sample). Recall that the Sceptics and Traditionalists were more likely to oppose the use of the technologies.

It is of interest that the allocation of resources into prevention and research on causes, compared to developing new technologies, exhibited only moderate differences across the segments.

As Table 49 shows, when asked to allocate \$1 000 between two funding options, the groups most strongly in favour of reproductive technologies allocated more funds toward developing new technologies, while those more likely to be opposed to reproductive technologies allocated more funds to researching the causes of infertility.

Table 49. Cluster Analysis: Allocation of Resources

	Prevention and research on causes of infertility	Developing new technologie		
Average	604	396		
Moderate group	557	443		
Technologist group	550	450		
Sceptical group	685	316		
Traditionalist group	712	288		

Summary

The Social Values and Attitudes Survey explored the fundamental values and attitudes held by Canadians, and how these attitudes are related to reproductive technologies. While financial security, work, and career were very important to respondents in the study, the results show that personal health, family, and children were most important. Financial security and career promotion were the immediate concerns of almost the majority of respondents.

The results also show that respondents were divided on whether the rights of the individual or the rights of the community are more important. In terms of the direction of society, most respondents believed that the changes in the attitudes of Canadians in the last 20 years have been very positive. However, the majority also believed that Canadians are too preoccupied with buying material things.

Personal health was considered to be very important to Canadians. Nearly eight in ten respondents agreed that one of the best things about Canada is its health care system. Most also appeared relatively comfortable with medical technology, although 33% were worried that medical science is moving too fast for society to maintain control over its use. The role of doctors, according to respondents, should not involve moral judgments: six in ten agreed that doctors should not be responsible for making moral or ethical decisions about life and death.

On the use of technology, the majority of respondents did not agree with its use to keep people alive when they would die without it (i.e., life support systems), but did agree with the use of technology to transplant organs. In a more general case, respondents were divided on the use of technology to alter natural processes. Forty-two percent agreed, and 37% disagreed, that even though we increasingly know more about some

processes of human life, such as birth, we are not meant to alter these processes.

While there was some hesitation about the use of technology in medical practice, there was no lack of support for technology in general. Almost seven in ten respondents were optimistic about the helpfulness of scientific developments and 71% welcomed new scientific developments. Only 21% reported they were fearful of the impact of scientific developments. Most, however, did not believe that science holds all the answers: 33% said that everything in life can be explained through science, while 30% said everything in life is a mystery.

Respondents' senses of tolerance and equality were also measured and revealed a great commitment to equality as well as tolerance for new Canadian immigrants. In practice, however, the strength of support for the equality of others depended on the characteristics of the individual. Over 40% thought that homosexual relationships are unacceptable. In addition, only slightly over four in ten respondents believed that an immigration policy allowing immigrants from all parts of the world to enter Canada would be a positive societal development.

An assessment of attitudes toward women revealed general support for women gaining more power and influence in the workforce, with three in four respondents saying this represented a positive impact on society. Almost seven in ten agreed, however, that the opportunities for women are not equal to the opportunities for men in Canadian society.

Slightly more than half of respondents believed that we should have more religious values in our lives. Almost half of those surveyed said that we need to seek God's help and that it is important that children be raised with strong religious values. While only 10% of respondents said they were atheist or agnostic, only one-third of respondents rated religion as having a major influence in their lives, and only 30% said they attend church at least once a month. Religion was not found to be a single determining factor with regard to reproductive technologies, as people with religious affiliations both supported and opposed these technologies.

Family and children were seen as a very important component of people's lives. Parents said children are a necessary part of their lives and childbearing was "just something I expected to do." Among respondents who do not have children, their reasons were primarily that they were not in a suitable relationship, or that they were waiting until they were older. Fifty-four percent of childless individuals reported a strong desire to have children.

Despite the importance placed on the family, over seven in ten said that it is possible to have a happy and fulfilling life without children. Based on the results of the survey, there was no overall difference between the importance placed on having either a male or a female child.

Two-thirds of respondents defined a family to include a mother, father, and one or more children. Marriage and the presence of children appeared to be the two defining characteristics of a family. Just over one-third of

respondents considered a homosexual couple with children to be a family, and only one-quarter considered a man and a woman living common-law without children to be a family.

Two-thirds of respondents said a married couple on welfare should not have or adopt children, and 65% opposed a homosexual couple living together having or adopting children. Fewer (one in three) opposed a single woman having/adopting children, while 43% opposed a single man having or adopting children. Through these responses, the differences of opinion about what constitutes a family are apparent.

Views on technology did not necessarily equate with attitudes toward reproductive technologies. While seven in ten respondents agreed that all known technologies should be made available to help people who have difficulties having a child, only 46% agreed that having children is so important that technology should be used. There was strong support for the availability of the technology: 73% agreed that if the technology to assist people to have children is available, people should have the right to use it. These results, however, do not always indicate strong support for all the technologies currently in use.

In general, support for reproductive technologies was high (62%). Nearly one in four, however, were very or somewhat fearful of the use of reproductive technologies.

Support for specific technologies was varied. Over 50% of respondents agreed with the use of DI but less than half (47%) said they would be likely to use sperm from a sperm bank themselves. Even higher support was seen for IVF, with 79% of respondents agreeing with its use, and 76% stating they would be likely to use this method if they were in this situation. Support for surrogacy was considerably lower than for DI or IVF.

Examples showed that respondents' perception of a family also contributed strongly to their support for the use of the technologies by specific groups. The highest support for the use of the technologies was given for IVF when used by a couple who cannot conceive. Fifty-four percent of respondents supported the use of insemination by a couple who cannot conceive unless the woman is inseminated with an anonymous donor's sperm. Support for a couple hiring a surrogate was higher than for a single woman using insemination. Support for a single man hiring a surrogate was significantly lower than support for the couple who hire a surrogate. The two cases of homosexual couples using reproductive technologies received the highest opposition. Seventy-one percent opposed a lesbian couple using DI and 76% opposed a gay male couple hiring a surrogate to be inseminated with the sperm of one of the men.

Over 90% of women said that they were unlikely to become surrogates because they would not be able to give away the baby and could not undergo pregnancy or birth unless it was their own child. Only 6% of women in the sample said they would consider becoming a surrogate. Of the male respondents, 26% said they were likely to consider donating sperm to a sperm bank. Among those unlikely to donate sperm under any

circumstances, nearly 50% offered the reason that they did not want someone they did not know to have their child, while 34% said they could not go through the process of donation. Confidentiality was a requirement for 25% of those who said they would consider sperm donation, while one in five stated they would consider donating their sperm if they were assisting someone they knew.

Respondents were divided on whether women who become surrogates do so for the money, or whether they genuinely want to help a woman who cannot carry the fetus. Over 60% of respondents did not believe surrogacy would have a big impact on society because it would not be used by very

many people.

Awareness of prenatal diagnosis was high. Nearly 92% of respondents said they had heard about or were aware of amniocentesis and many said they would support its use. One in five (20%) would be likely to use amniocentesis to test for the sex of the fetus, while 79% would test the fetus if there was a risk of a severe disease. One-third of respondents (32%) were supportive of sex identification testing, while 81% were supportive of prenatal screening for hereditary disease.

Respondents were divided in their opinions of the impact on society if many people decided to use prenatal diagnosis. Forty-four percent believed that people would be more likely to terminate their pregnancy, while 42% believed people would be more prepared for a child with a genetic disease

or disability.

Respondents knew significantly less about fetal tissue use than about reproductive technologies in general. Thirty-seven percent of respondents had never heard about fetal tissue research, and only 18% said they knew quite a bit about it. The majority of respondents did not hold a firm opinion on the research: 52% said they did not know whether they supported or opposed it. Slightly over one-third (34%) believed that it is a positive development and should be encouraged, while 13% said it is wrong to use fetal tissue for these purposes, and it should be stopped. Support for fetal tissue research increased if the fetus was going to be aborted anyway or if the fetus was miscarried. Eighteen percent would not support the research under any circumstances.

The question of pregnancy termination was also studied. Respondents gave their highest support (73%) for the option of termination where the fetus is known to have such a severe problem that the child would probably die within the first six months of life. Sixty percent supported the option of termination when the fetus is known to be mentally disabled to the degree that independent living would not be possible, while 59% were supportive in the case of physical disability where independent living would not be possible. Slightly over 50% supported the option of termination when the fetus is known to be handicapped to the point that the child would have to spend his or her life in a wheelchair. In summary, there was majority support for the option of termination in all cases of great physical and mental disability. However, virtually all respondents opposed the

option of termination when the sex of the fetus is not what the parents had hoped for.

There was no major support amongst respondents for screening those who would use the reproductive technologies. Only limited numbers supported screening on the basis of marital status or for people who do not follow a mainstream religion. Nearly 50% opposed screening people with low income and 49% opposed screening people who cannot stay at home with the baby. In each of these cases, about 25% were neither for nor against.

Respondents were divided on the issue of cost. Overall, however, 56% supported the provincial health care system paying at least part of the cost of the technologies. However, slightly over one in five respondents (22%) believed that the individual should pay the total cost of reproductive technologies procedures, while 19% believed the provincial health care system should pay only for research on reproductive technologies, but not the cost of treatment. The average respondent preferred allocating more funds for research into the causes of infertility than on the development of new technologies.

Religion is not necessarily a good predictor of attitudes toward reproductive technologies. While there were those with relatively strong religious convictions who supported the technologies, there was another segment with strong religious convictions who were more likely to oppose the technologies. In terms of demographics, the results consistently show that respondents between 18 and 29 years of age were the strongest supporters of the use of technologies, while support among older respondents was divided. Interestingly, there is no identifiable trend between the responses of men and the responses of women, although specific variations have been highlighted within the report.

Finally, the segmentation analysis demonstrates that the different segments identified consistently varied in their attitudes toward reproductive technologies. The Technologists were most supportive, although this varied depending on the context or application. In most instances, the Moderates followed the Technologists in terms of overall support, but this support declined for those scenarios involving a gay or lesbian couple. Unlike the Technologists, Moderates, who represent an older segment of the population, supported reproductive technologies because of the high importance they attributed to having children, although this group was less supportive of technology in general.

With the exception of prenatal diagnosis and fetal tissue research, the majority of Sceptics did not support the reproductive technologies, based on concerns regarding how the technologies will be used and their impact on society. Reporting relatively higher levels of awareness of reproductive technologies, Sceptics demonstrated far lower levels of support for their use and availability than either the Technologists or the Moderates.

Clearly, support was lowest among the Traditionalists. Respondents in this strongly religious segment were more likely than others to advocate

that reproductive technologies should not be available, and most likely to oppose their use in general, as well as in the context of specific scenarios. Unlike the Sceptics, opposition to reproductive technologies among Traditionalists stemmed from their strong religious values and their concerns about technology in general.

This study has explored the views of Canadians in order to assess their opinions about the reproductive technologies. Through this analysis we can gain a better understanding of the values, opinions, and behaviours

that shape those attitudes.

Appendix 1. Methodology

Methodology

The research program for the Royal Commission on New Reproductive Technologies involved two phases: a series of focus groups was under-

taken, followed by a placed mail survey.

Qualitative information gathered from the focus groups was used to provide information for the development of hypotheses for the mail survey, to understand the emotional importance of specific values and opinions, to probe reasons why people hold particular points of view, and to provide insight for interpreting results of the quantitative study.

Focus Groups

A total of 10 focus groups were conducted. The groups were designed to represent the population that would eventually be represented in the mail survey, while ensuring that traditionally under-represented sectors of the population were included. Four of the eight groups were held for the visible minority population, with two groups held for Canadian Native peoples. Five of the total 10 groups were held with women, and five were composed of men. The groups were separated by gender because there was concern whether women and men would discuss openly values and new reproductive technology issues if the groups were mixed.

The location and demographics of the focus groups are presented in

Figure 25.

Focus group participants were recruited using a random digit dialling system to obtain telephone numbers. An incentive of \$35 was given to all focus group participants.

Placed Mail

There were two phases in the placed mail survey. The first phase was a telephone survey in which a sample was drawn using a modified random sampling technique. To increase the response rate, a telephone solicitation

approach was used instead of a simple random mailing. This procedure enabled the researchers to ensure confidentiality concerning answers to sensitive questions and to avoid fatigue associated with a long telephone survey. The telephone survey was designed to collect minimal information on the sample and to gather addresses for the mail survey. After respondents completed a brief survey, they were asked if they would accept a longer questionnaire by mail. All those who accepted the survey received a copy of the mail survey (see below for details).

The telephone survey was administered to 7 664 Canadian residents 18 years of age and over. The survey included 15 questions, 5 of which addressed key demographic variables. Respondents were chosen using an entirely random sampling methodology. Results from a national stratified sample of 7 664 have a 95% confidence level of ± 1.2%. This ensures 95% accuracy in results with ± 1.2%.

The sampling distribution of age of respondents by province on the telephone survey was compared to Statistics Canada data. The results show little demographic variation between Statistics Canada sampling and the sample used here (see Table 50).

Table 50.	Statistics	Canada	Verification	by	Age	by	Province
(Telephon	e Survey)						

	Age							
	20-24 (%)	25-29 (%)	30-34 (%)	35-39 (%)	40-44 (%)	45-49 (%)	50-54 (%)	55-59 (%)
British Columbia								
Statistics Canada (5)	10	11	12	12	11	8	7	6
Survey result	9	12	13	12	10	7	6	5
Alberta								
Statistics Canada	11	13	14	13	11	8	6	6
Survey result	11	13	16	15	11	6	6	6
Saskatchewan								
Statistics Canada	10	12	12	11	9	7	6	6
Survey result	8	10	14	12	9	6	6	6
Manitoba								
Statistics Canada	11	12	12	11	10	8	6	6
Survey result	9	11	11	14	10	9	5	5
Ontario								
Statistics Canada	10	12	12	11	10	9	7	6
Survey result	10	11	13	12	10	7	5	5
					, 0	,	3	- 3

	Age							
	20-24 (%)	25-29 (%)	30-34 (%)	35-39 (%)	40-44 (%)	45-49 (%)	50-54 (%)	55-59 (%)
Quebec								
Statistics Canada	10	12	13	12	11	9	7	6
Survey result	9	12	14	14	10	9	6	5
New Brunswick								
Statistics Canada	11	12	12	12	11	8	7	6
Survey result	7	10	8	13	15	8	6	3
Vova Scotia								
Statistics Canada	11	12	12	11	10	8	7	6
Survey result	10	13	14	13	13	8	6	3
Prince Edward								
Statistics Canada	11	12	12	11	11	8	7	6
Survey result	-	11	28	8	8	8	8	6
Newfoundland								
Statistics Canada	13	12	12	12	11	7	6	6
Survey result	12	12	15	17	11	6	7	6

The Mail Survey

The mail survey itself was developed in close consultation with the Royal Commission on New Reproductive Technologies, academics, and other research professionals.

Once a draft version of the survey had been designed, Decima and the members of the Commission met with the Institute for Social Research at York University. Three members of the Institute reviewed the section of the questionnaire that addressed general values and offered recommendations for the survey based on their knowledge in the field.

The mail survey questionnaire was pre-tested in English and French. Fifty participants were recruited for pre-test sessions in both Toronto and Montreal. They were asked to complete the survey, noting any problems or inconsistencies they found. The research team then reviewed the questionnaires and adjusted the format, structure, and wording of questions, as recommended. The revised version of the questionnaire was then distributed within the Commission, to both staff and Commissioners, for comments. It was refined and finalized following the Commission's review.

The interview schedule presents the questions asked of respondents in the mail survey (see Appendix 2).

Of the 7 664 telephone survey respondents, 73% (5 660) agreed to receive the mail survey. A letter from Decima, as well as a self-addressed envelope (to increase the response rate by making it easier for participants to return the survey), were included with the survey. In addition, one-half of those surveyed were randomly selected to receive an information sheet on new reproductive technologies. There appeared to be no discernible impact from this.

One week after the surveys were distributed, a mail reminder was sent to all respondents to encourage their participation. Two weeks after the survey had been mailed out, telephone calls were made to respondents whose surveys had not been received; these calls served as both a reminder and a check that they had received the survey. In addition, a toll-free telephone number was available to respondents to call if they had any enquiries about the survey.

In every province, more women than men returned the survey. To ensure that the results were reflective of the general population, the results were weighted so that the proportion of women to men mirrored that of the general population in each province. In addition to weighting by gender, the national results were also weighted by province.

A total of 2 722 surveys were received, which is a high rate of return given that no incentive for participation was offered. Statistical analyses were based, however, on a weighted sample of 2 050. Table 51 outlines the weights that were applied to respondents in each region.

Given that the results were weighted on only two variables, it was necessary to compare other relevant demographic variables measured on the survey to Statistics Canada results. Table 52 shows sample validation for age, income, and marital status.

There were three specific components of the research where the demographics could not be controlled: the telephone survey (with the exception of gender and province); the acceptance rate of the mail survey; and the return rate of the survey. Given that the results were open to bias at each of these stages, it would be expected that the results would not necessarily mirror those of Statistics Canada. However, the validation shows that the demographics of the final data mirror Statistics Canada data with a high degree of precision.

Table 51. Weighting Scheme Applied to Mail Survey Data

		Actual sample	Table A applied weight	Weighted n
British Columbia	Men	158	0.7688	121
	Women	174	0.7145	124
Alberta	Men	110	0.8425	93
	Women	163	0.5659	92
Saskatchewan	Men	50	0.7307	37
	Women	51	0.7262	37
Manitoba	Men	47	0.8632	41
	Women	64	0.6528	42
Ontario	Men	452	0.8407	380
	Women	562	0.6744	379
Quebec	Men	263	0.9811	258
	Women	360	0.7461	269
New Brunswick	Men	34	0.8022	27
	Women	45	0.6216	28
Nova Scotia	Men	51	0.6702	34
	Women	56	0.6333	35
Prince Edward Island	Men	4	1.2813	5
	Women	9	0.5854	5
Newfoundland	Men	29	0.7297	21
	Women	40	0.5434	22
		2 722		2 050

Table 52. Sample Validation for Demographic Variables (Mail Survey)

* /					
Age	Survey (%)	Statistics Canada (%)			
18-19	2.8	4.2			
20-24	8.1	12.4			
25-29	14.3	12.9			
30-34	14.5	12.1			
35-39	13.0	11.2			
40-44	10.7	8.9			
45-49	9.1	8.4			
50-54	5.5	6.8			
55-59	5.3	6.6			
60-64	5.7	6.2			
65 years +	11.0	11.4			

	% of family incomes			% of incomes of unattached persons		
Income (annual household)	Survey	Statistics Canada		Survey*	Statistics Canada*	
<\$20 000	12.1	13.4		45.4	55.6	
\$20 000-39 999	28.5	27.7		32.0	31.1	
\$40 000-59 999	29.1	27.2	}	}		
\$60 000-79 999	16.3	16.7	J	22.5	13.2	
\$80 000+	14.0	15.1				

Statistics Canada does not report income breakdowns over \$40 000 for unattached individuals.

Marital status	Survey (%)	Statistics Canada (%		
Single	19.4	19.1		
Married/common-law	68.4	66.9		
Separated/divorced	7.8	7.2		
Widowed	4.5	6.9		

Appendix 2. Interview Schedule

The 1992 Canadian Values and Attitudes Survey

Thank you for agreeing to participate in our survey.

Please return your completed questionnaire to Decima
Research in the enclosed postage-paid envelope.

Decima Research

INSTRUCTIONS

We have tried to make the questions in this survey as easy as possible to complete. Instructions are clearly indicated.

Just check the appropriate box(es), circle(s) or fill in the appropriate blank(s) to indicate your answer.

For example:

1. What is your age? Check one box

□01 18-19 years	2007 45-49 years
□02 20-24 years	□08 50-54 years
□03 25-29 years	□09 55-59 years
□04 30-34 years	□10 60-64 years
□05 35-39 years	□11 65 years or older
□06 40-44 years	

- 2. How many children do you have in each of the following age categories? (write in 0 if none)
 - 1 Under 12 months
 - 0 12 months to just under 3 years old
 - 0 3 years to just under 5 years old
 - 2 5 years to just under 10 years old
- 0 10 years to just under 15 years old
- 0 15 years to just under 18 years old
- 0 18 years or older

Questions?? Problems??

Please read the instructions carefully. If you still have questions or problems, please call us collect in Ottawa at (613) 238-4371 and ask for Natalie Lacey.

Speedy Completion and Return:

It is important that the survey be completed as soon as possible and returned in the enclosed postage-paid envelope. Thank you.

AN ASSURANCE

We assure you that all your responses are strictly confidential. A report which only refers to the combined answers of all participants in this survey will be prepared.

WHAT'S IMPORTANT TO YOU

 Below is a ladder that you can use to indicate how important each of the following is to you, personally, at this time in your life. The higher up the ladder you go (climbing up to 10), the more important it is to you. The lower down the ladder (climbing down to 0), the less important it is to you. For each item, please give it a number from the ladder, and record the number on the line next to it. Record in column Q1.

If you come to an item that does not apply to you, place an "X" in the space.

Each number can be used more than once.

How important is	Q 1			Q2	
	%7-10	,	%1	2	3
Your personal health	90	/ 10 /	22	16	17
Your family	90	9	23	20	15
Contributing to the community		8			
through volunteer work	22	7	0	0	1
Religious beliefs in your daily life	37	6	5	2	3
Your work or career	66	5	3	6	11
Close friendships	71	4	2	5	8
Your husband/wife/partner	89	3	24	27	10
Leisure activities	53	2	1	1	3
Your children	88	1	21	19	13
Political involvement	10 /		0	0	1
Financial security	79 /	0 /	3	7	20

- 2. Looking at this list again, which would you say is...
 - a. most important to you? Write "1" in the space.
 - b. which comes next? Write "2" in the space.
 - c. which is third most important? Write "3" in the space.

Choose only three — Record in column 92

3. There are many different ways to define a "family." Looking at the list, please indicate whether you consider each group to be a family.

I consider a family	Depends	l do not consider a family
60	16	22
26	24	47
65	18	14
37	18	41
13	13	70
	60 26 65 37	a family Depends 60 16 26 24 65 18 37 18

- 4. People's goals and expectations can often change during their lives. Which of the following would you say is the *most* important goal for you personally over the next two years? *Check only one box*
 - 8 Being promoted or receiving an advancement in your career
 - 28 Being a good parent
 - 7 Developing close friendships
 - 38 Becoming more financially secure
 - Building/strengthening a long-term relationship with a man or a woman

Listed below are statements that may or may not represent your opinion. Please indicate how much you agree or disagree with each as it applies to you. "1" means you strongly agree and "7" means you strongly disagree. **Check only one box for each statement**

	Strongly agree		Neither a		Strongly disagree		
	1	2	3 4	5	6 7		
The numbers correspond to	1 %	2-3 %	4 %	5-6 %	7 %		
1. I believe that even though there are some processes of human life, such as birth, that we increasingly know more about, we are not meant to alter these processes.	22	20	20	23	14		

		Strongly agree		Neither agr		Strongly disagree	
		1	2 3	3 4	5 6	7	
The	numbers correspond to	1 %	2-3 %	4 %	5-6 %	7 %	
2.	Women who have young children and work outside the home are not as good mothers as those who do not work outside the home.	7	12	15	19	46	
3.	I worry that medical science is moving too fast for our society to maintain control over its use.	11	24	21	24	20	
4.	The rights and free- doms of the individual are always more important than the rights of the community.	20	22	21	26	11	
5.	In general, I do not react to other people's opinions, even if I disagree with them.	9	26	17	36	12	
6.	I believe that everyone who wants to have a child should be able to do so.	33	24	12	18	13	
7.	Canada welcomes people from different races, religions and cultures into society.	29	36	14	15	5	
8.	Doctors should only be responsible for health care, not for making moral or ethical judgments about human life.	33	27	14	18	7	

		Strongly agree		Neither ag		Strongly disagree		
		1	2	3 4	5 (6 7		
Th	e numbers correspond to	1 %	2-3 %	4 %	5-6 %	7 %		
9.	Canadians are too preoccupied with buying material things.	26	40	21	9	3		
10.	The ideal family has a mother, father and one or more children.	45	23	15	8	8		
11.	It is possible to have a happy and fulfilling life without children.	39	33	14	9	5		
12.	I would be willing to pay more taxes to provide adequate food, shelter, and health care for those Canadians who can't provide it for themselves.	12	28	20	21	19		
13.	It would do Canadians a lot of good if we had more religious values in our lives.	27	28	22	12	11		
14.	It is very important to carry my culture and ethnic heritage on through my children.	26	33	24	11			
15.	One of the best things about Canada is our health care system.	52	37	6		6		
16.	I consider myself very aware of political and social issues in the	_	07	O	3	2		
	country.	18	44	17	15	6		

	Strongly agree		Neither ag		Strongly disagree		
	1	2	3 4	5 6	7		
The numbers correspond to	1 %	2-3 %	4 %	5-6 %	7 %		
17. We have reached a time when we all need to reach out to God for help.	26	21	25	12	16		
18. If you work hard and put your mind to it, you can be anything you want to be.	37	44	8	8	3		
19. All known technologies should be made available to help people who have difficulties having a child.	37	33	13	11	6		
20. The opportunities for women are not equal to the opportunities for men in our society.	31	38	13	11	7		
21. It is important that children be raised with strong religious values.	21	29	23	13	14		
22. Every individual should be treated equally regardless of ethnic origin, colour, religion, sex, age, or mental or physical disability.	67	23	4	3	2		
23. Overall, changes in the attitudes of Canadians in the last 20 years have been very	3	00	0.0	10	6		
positive.	11	39	26	18	6		

Please consider the following statements and indicate whether you think each statement represents a positive or negative development to society. **Check one box for each statement**

		Very positive	e	Neithe positiv or negat	re	Very egative
		1	2	3 4	5 6	7
	The numbers correspond to	1 %	2-3 %	4 %	5-6 %	7 %
	1. An immigration policy that allows immigrants from all parts of the world to enter Canada.	14	27	22	22	14
64	2. Declining role of religious teachings in the education system.	12	16	27	26	18
3	3. Women gaining more power and influence in the workforce.	37	39	16	. 4	2
4	4. Women having children later in life.	14	35	37	10	3

The following **comparison scales** are sets of 2 statements that are opposite points of view. Please read each statement, then indicate by circling a number between the statements which is closer to your point of view. A four means both statements are equally true in your opinion.

Example:

When you shop, which do you look for...

Price <u>1 2 3 4 5 6 7</u> Selection

- To circle 1 means you only look for price
- To circle 7 means you only look for selection
- To circle 4 means you shop equally for price and selection

1. Which is closer to the way you live your life...

			0 0		•					
Looking at the past and how things were	1 1	2	8	3	36 4	5	39	6		Looking to the future and how things might be
2. What is more	impor	tan	t to	you	•					
Standing out and being separate from others	8	2	31	3	31 4	5	22	6	7 7	Being part of and similar to a group
3. Do you believ	e									
Everything in life is a mystery	8	2	22	3	37 4	5	27	6	6 7	Everything in life can be explained through science
4. Do you believ	e									-
Homosexual relationships are unaccept- able	27	2	16	3	21	5	18	6	17 7	Homosexual relation- ships are acceptable
5. I am generally pessimistic about how helpful scientific developments can be 6. I	2 1	2	8	3	22 4	5	45	6	22 7	generally optimistic about how helpful scientific developments can be
am fearful of new scientific developments	2 1	2	8	3	18 4	5	42	6	29	welcome new scientific develop- ments

YOUR FEELINGS AND OPINIONS

Below you will find a series of statements. Please read each carefully and then indicate how supportive or opposed you are to each.

1. In general, how supportive or opposed do you feel about each of the following having or adopting children?

	Strongly supportiv		Neither supportive or opposed			
	1	2 3	4	5	6	7
The numbers correspond to	1 %	2-3 %	<i>4</i> %	5-6 %		7 %
Married couple on welfare	5	10	22	30		33
Homosexual couple who are living together	5	11	18	17		48
Single woman who decides to have children outside of marriage or common-law relationship	11	28	25	17		18
Single man who decides to have children outside of marriage or common-law						
relationship	9	24	23	20		23

2. In general, how supportive or opposed do you feel about each of the following:

Using sperm from a third party to help a couple who have difficulty having children	28	30	20	9	13
The use of technology to keep people alive when they would die without it (i.e., life support systems)	6	14	19	28	33

	Strongly supportive		Neither supportive or opposed			Strongly opposed	
	1	2	3	4	5	6	7
The numbers correspond to	1 %		2-3 %	4 %	5-6 %	3	7 %
The use of technology to transplant organs	61		27	. 7	3		2
Using new advances in technology to assist people to have children	41		35	13	6		4

Listed below are some statements. Please read each carefully and indicate the extent to which you agree or disagree with each.

		Strongl	y	Neither or disa	_	Strongly disagree
		1	2	3 4	5	6 7
The	e numbers correspond to	1 %	2-3 %	4 %	5-6 %	7 %
3.	Technology should not interfere with nature when it comes to having children.	13	13	18	32	23
4.	I am opposed to using new advances in technology because there are physical risks to the woman involved.	7	16	32	30	15
5.	I don't know enough about new advances in technology which assist people to have children.	14	29	25	24	7
6.	I am generally fearful of the impact of scientific developments.	5	16	21	36	21

		Strongl	y	Neither a	_	Strongly disagree
		1	2	3 4	5	6 7
Th	e numbers correspond to	1 %	2-3 %	4 %	5-6 %	7 %
7.	If the technology to assist people to have children is available, people should have the right to use it.	38	35	14	8	5
8.	Having children is so important that technology should be used.	17	29	28	16	9
9.	It is important to have children in order to pass on your own values to future society.	19	25	25	16	14
10.	It is important to have children to share love, caring and intimacy.	36	32	14	9	8
11.	It is very important to me to have at least one male child.	11	14	31	13	31
12.	People should plan the timing of their family very carefully.	24	34	24	10	9
13.	I worry that medical technologies are not safe enough to be used to assist people to have children.	4	14	33	31	17

	Strong	•	either ag or disagro		Strongly disagree
	1	2 3	4	5 6	7
The numbers correspond to	1 %	2-3 %	4 %	5-6 %	7 %
14. It is important for people to donate organs to medical science when they die.	40	33	19	5	3
15. It is very important to me to have at least one female child.	11	13	35	12	28

WAYS OF HAVING CHILDREN

The following story talks about a couple, Robert and Mika, and asks you for your opinions on what should be done.

Four years ago, Robert and Mika were married and decided that they wanted to have a child. However, they found out that Robert is not able to have children for physical reasons, but Mika is able to.

1. If you were Robert and Mika, what would you do in this situation? (Write answer below)

Adopt	51
AI/sperm bank	22
Check into other options	4
Nothing	4
See a doctor	5
Other	9

Robert and Mika decided to look into various options. They looked at adoption, but found that the waiting period was very long. From their doctor, they learned about some other options that are available.

One option is for Mika to become pregnant by using sperm from a sperm bank where the sperm from a donor is stored until needed. The sperm from someone else would be used to make Mika pregnant through a process called "insemination."

2. To what extent would you agree or disagree with their using sperm from a sperm bank?

30 Agree totally 14 Disagree totally 24 Agree somewhat 13 Disagree somewhat

- 18 Not agree or disagree
- 3. If you were Robert and Mika, how likely would you be to use sperm from a sperm bank to have children?

21 Very likely
20 Somewhat unlikely
26 Somewhat likely
32 Very unlikely

Now suppose that Robert has no difficulty and Mika is physically unable to have children because her tubes are blocked. She is able to carry a fetus to birth. One option that has been described to them is for doctors to take the egg from Mika and join it with Robert's sperm outside the body. The fertilized eggs would then be put inside Mika's womb.

4. To what extent would you agree or disagree with Mika and Robert doing that?

54 Agree totally
25 Agree somewhat
12 Not agree or disagree
4 Disagree somewhat
4 Disagree totally

5. If you were Robert and Mika, how likely is it that you would use this method?

Very likely
Somewhat unlikely
Somewhat likely
Very unlikely

Another method that could be used in this situation if Mika has no eggs, is that a second woman who can produce the eggs would become pregnant using Robert's sperm through insemination. She would carry the fetus to birth and then give the baby to Mika and Robert.

6. To what extent would you agree or disagree with Mika and Robert taking that approach?

9 Agree totally 23 Disagree somewhat 14 Agree somewhat 35 Disagree totally 19 Not agree or disagree

7. If you were Robert and Mika, how likely is it that you would take this approach?

6 Very likely 27 Somewhat unlikely 14 Somewhat likely 52 Very unlikely

Now assume Mika has a medical condition that means that if she becomes pregnant it will threaten her life. The doctor tells them that Mika's egg and Robert's sperm can be joined. The fertilized egg can then be put into a woman who is willing to carry the fetus to birth. The baby would be given to Robert and Mika.

8. To what extent would you agree or disagree with Mika and Robert taking this approach?

12 Agree totally 20 Disagree somewhat 19 Agree somewhat 29 Disagree totally

- 19 Not agree or disagree
- 9. If you were Robert and Mika, how likely is it that you would take this approach?

9 Very likely 26 Somewhat unlikely 19 Somewhat likely 45 Very unlikely

10. What if the woman was being paid? To what extent would you agree or disagree with Mika and Robert taking that approach?

9 Agree totally 19 Disagree somewhat 15 Agree somewhat 37 Disagree totally 19 Not agree or disagree

11. If you were Robert and Mika, how likely is it that you would take this approach if the woman was being paid?

7 Very likely 24 Somewhat unlikely 17 Somewhat likely 52 Very unlikely

Given the new technology, it is possible to do tests such as amniocentesis on the fetus while it is still in the womb. How likely would you be to test a fetus you or your partner was carrying...

12. Only to determine the gender (sex) of the child?

8 Very likely 19 Somewhat unlikely 12 Somewhat likely 60 Very unlikely

- 13. If you were at risk of passing along a severe disease to your child?
 - 61 Very likely 5 Somewhat unlikely
 - 18 Somewhat likely 14 Very unlikely
- 14. Even if you would not undergo a test, how supportive or opposed would you be of people having the option of testing the fetus only to determine the gender (sex) of the child?
 - 11 Very supportive 29 Somewhat opposed
 - 21 Somewhat supportive 38 Very opposed
- 15. Even if you would not undergo a test, how supportive or opposed would you be of people who are at risk of passing along a severe disease to the child having the option of testing the fetus for disease?
 - 61 Very supportive 8 Somewhat opposed
 - 20 Somewhat supportive 10 Very opposed

Some of the methods for having children discussed in this section (Ways of Having Children) are reproductive technologies that have been developed. Please consider these methods when you read about reproductive technologies in the survey.

- 16. Before you answered this survey, how aware were you of these new reproductive technologies?
 - Very aware
 Somewhat aware
 Not very aware
 Not at all aware
- 17. Do you know anyone who has used or is using one or more of the procedures that Robert and Mika discussed? *Check only one box*
 - 42 I don't know anyone who has considered these procedures
 - 25 I don't know of anyone who has used these procedures
 - 24 I know of people who have tried these procedures
 - 8 I am very close to people who have tried these procedures

FOR MEN ONLY

18. How likely is it that you would consider donating your sperm to a sperm bank?

8	Very likely	Go to	28	Unlikely	Answer
18	Likely	Q20 below	45	Very unlikely	Q 19

- 19. What are the main reasons why you are unlikely to donate sperm? *Check as many as apply*
 - 17 It is morally wrong
 - 34 I could not go through the process of donation
 - 46 I don't want someone I don't know to have my child
 - 18 I oppose insemination

Answer 920

- 20. Under which of the following conditions would you consider donating sperm to a sperm bank? *Check as many as apply*
 - 25 If my identity would be kept confidential
 - 15 If the sperm were not used for selection of genetic qualities
 - 21 If I am donating sperm to assist someone I know
 - 8 If I received payment for it
 - 10 If I could have a say in who gets my sperm
 - 53 NO RESPONSE

FOR WOMEN ONLY

21. How likely is it that, under some circumstance, you would become a "surrogate," that is, carry the fetus for another woman?

2 Very likely | Answer | 13 Unlikely | Answer | 4 Likely | **Q23** | 77 Very unlikely | **Q22**

- 22. What are the main reasons why you are unlikely to become a surrogate? **Check as many as apply**
 - 21 Because it is morally wrong
 - 67 Because I couldn't give away a baby I gave birth to
 - 63 Because I wouldn't undergo pregnancy or birth unless it was my child

Answer 923

23. Under what conditions would you consider becoming a surrogate? **Check as many as apply**

I would consider being a surrogate...

- 11 If I knew I was helping people who cannot have children on their own
 - 3 If I received payment for it
- 17 If it was for a relative
- 5 If I was assured my identity would be kept confidential from the child
- 9 If I was assured I could keep in contact with the child
- 72 NO RESPONSE

The following **comparison scales** are sets of 2 statements that are opposite points of view. Please read each statement, then indicate by circling a number between the statements which is closer to your point of view. A four means both statements are equally true in your opinion.

1. Which one is closest to your view?

					women who
					become a
					surrogate do
Women who					so because
become a					they genuinely
surrogate do					want to help a
so because					woman who
of the	11	20	43	18	6 can't carry the
money.	1	2 3	4 5	6	7 fetus.
•					

2. Which one is closest to your view?

will
will
big
will
d
ıny
w d

3. Which of the following is closest to your point of view?

Surrogacy							A person who
should not							is infertile
become							who wants to
something							should be
that an							able to
infertile							consider
person							using a
should	13		16	23	29		16 surrogate to
consider.	1	2	3	4	5	6	7 have a baby.

4. Which of the following is closest to your point of view?

I have no							I do not
problem							approve of a
with women							woman who
who become							becomes a
surrogates	14	2	1	27		15	20 surrogate
being paid.	1	2	3	4	5	6	7 being paid.

5. Which of the following is closest to your point of view?

I have no							
problem							I do not
with men							approve of
who donate							men who
sperm to a							donate sperm
sperm bank							to a sperm
being paid	14		19	26	1	6	23 bank being
to do so.	1	2	3	4	5	6	7 paid to do so.

THE USE OF MEDICAL TECHNOLOGIES

Below you will find one side of a conversation. Using the options available, please indicate how you would personally respond. **Check only one box for each**

Marcel: You know, I've been doing some reading lately on the technologies that can affect reproduction. They call them "new reproductive technologies." Did you know that it is now possible to test, before it is born, whether the fetus has a genetic disease that it may inherit from its parents, or a disability?

- 1. You:
 - 69 Yes, I was aware of that
 - 22 I think I've heard something about it
 - 8 No, I was not aware that such technology was available

Marcel: Do you think that this type of technology should be allowed?

- 2. You:
 - Well, I think it should be allowed to be used and it should be the decision of the parent(s) if they want to test the fetus
 - 6 I don't think this technology should be allowed

18 I think this technology should not only be allowed, but should be required so that the parent(s) can be aware of any genetic disease or disability with the fetus

Marcel: If a lot of people decide to test the fetus, what do you think the impact on society would be?

- 3. You:
 - 8 People would become more prejudiced toward a child who is born with a disease or disability
 - 5 This type of technology will not have much impact
 - 44 People will become more likely to terminate their pregnancy
 - 42 People will be more prepared for a child who has a genetic disease or disability

Marcel: Did you know that tissue from an unborn fetus is used for medical research?

- 4. You:
 - 37 No. I have never heard about this
 - 44 I think I've heard something about it
 - 18 Yes, I know quite a bit about that

Marcel: The tissue from an unborn fetus is being used for organ donation or to control some diseases in adults and children.

- 5. You:
 - 34 I think that is a positive development and should be encouraged
 - 52 I don't know if I really support or oppose that
 - 13 I think it is wrong to use fetal tissue for these purposes and it should be stopped

Marcel: Some people's support or opposition depends on how the fetus became available. In what case would you support this research?

- 6. You:
 - 31 I would support the research if the fetus was going to be aborted anyway
 - 48 I would support the research if the fetus was "miscarried"
 - 18 I wouldn't support the research under any circumstances

With new medical technologies, it is possible to use tests such as amniocentesis and ultrasound to determine the health and sex of the fetus. For each of the following, please indicate the extent to which you support or oppose people having the option to terminate a pregnancy. **Check only one box for each statement**

	Strongly support		Neither support or oppose	5	Strongly oppose
	1	2 3	4	5 6	5 7
The numbers correspond to	1 %	2-3 %	4 %	5-6 %	7 %
1. When the fetus is known to have such a severe problem that the child will probably die within the first six months of life.	53	20	10	5	11
2. When the fetus is known to be handicapped to the point that the child will have to spend his or her life in a wheelchair.	31	21	18	13	15
3. When the fetus is known to be physically disabled to the degree that independent living will not be possible.	34	25	17	11	12
4. When the sex of a fetus is not what the parents had hoped for.	2	0	4	5	87
5. When the fetus is known to be mentally disabled to the degree that independent living will not be possible.	36	24	16	11	12
6. When the fetus is a result of rape or incest.	47	15	17	6	13
7. When the pregnancy was unplanned.	8	10	19	16	45

Based on what you think about the use of reproductive technologies, in general, do you support or oppose each of the following using reproductive technologies to have a child? *Check only one box for each*

	Strongl suppor		Neither support or oppose		Strongly oppose
	1	2 3	4	5	6 7
The numbers correspond to	1 %	2-3 %	4 %	5-6 %	7 %
1. A couple who cannot conceive unless the egg and the sperm are brought together outside the body and placed in her womb.	46	28	15	4	6
2. A couple who cannot conceive unless the woman is inseminated with the sperm of an anonymous donor to replace her partner's sperm.	25	24	20	14	17
3. A single man who hires a surrogate to be inseminated with his sperm so he can father a child.	7	14	22	23	34
4. A couple who hires a surrogate to be inseminated with the man's sperm because the woman's health would be endangered if she were to become pregnant.	17	24	19	17	22
5. A gay male couple who hire a surrogate to be inseminated with the sperm of one or both of the men to bear		7	10	10	20
them a child.	4	7	12	16	60

	Strongly		Neither support or oppose		Strongly oppose
	1	2 3	4	5	6 7
The numbers correspond to	1 %	2-3 %	4 %	5-6 %	7 %
6. A lesbian couple who have one of them inseminated with an anonymous donor's sperm so she can bear a child.	5	10	13	16	55
7. A single woman who is inseminated with an anonymous donor's sperm so she can have a child.		20	23	18	28

Some people have said there should be screening procedures to identify who should be able to use reproductive technologies. This would mean that certain groups of people would be refused access to the new technologies. In general, would you support or oppose screening of the following groups? **Check only one box for each**

Strongly support or oppos		Strongly oppose	
1 2 3 4	5 6	7	
The numbers correspond 1 2-3 4 to % % %	5-6 %	7 %	
1. People with low income 9 16 27	20	27	
2. People who are not married 12 14 24	20	28	
3. People who cannot stay home with the baby 8 13 28	21	28	
4. People who are not of a mainstream religious denomination 5 6 31	15	41	

5. Which of the following points of view is closest to your own? *Check only* one response

%

- Some people say that the provincial health care system should pay for the cost of reproductive technology procedures because it is a medical treatment.
- Other people say that the individual should pay the total cost of the reproductive technology procedures because it is not a medical treatment.
- 22 Still other people say that the health care system should pay only part of the cost of the technologies.
- Ideally, the provincial health care system should pay all the costs, however, there are other priorities right now.
- 19 The provincial health care system should pay for research on reproductive technologies, but not the cost of treatment.
- 6. Now assume \$1 000 is to be allocated to the following two options. Please put the amount you would allocate to each in the space provided. *The two need to add up to \$1 000.*
 - \$604 Researching the causes of infertility to find treatments and preventive measures
 - \$396 Developing new technologies that enable infertile women and men to have children

Total \$1 000

7. Some people say that assisted methods of conception should not be widely available because the medical procedures may endanger the health of women.

Other people say that assisted methods of conception should be widely available because the medical procedures are so important to women and men who are infertile and want to have a child.

Based only on these two arguments, which is closest to your view...

Should availab					Should availabl	
1	2	3	4	5	6	7
20	3	9	23		11	4

8.		n what you may have heard or know, how supportive or opposed you to the use of reproductive technologies?
	23 39 20	Strongly support 11 Somewhat oppose Somewhat support 5 Strongly oppose Neither support or oppose
9.		ed on what you may know, how do you feel about the use of new oductive technologies
		Go TO Q10 42 Not very fearful GO TO Q11 16 Not fearful at all
10.	Whice new	ch of the following reasons best describes why you are fearful of reproductive technologies? <i>Check as many as apply</i>
	30	Doctors will have too much control over reproduction
	38	The rights of the fetus will not be recognized
	35 26	Women will be used for reproductive services Research on the causes of infertility will not continue
	38	The technology has not been adequately tested and could be a health risk
	21	Women will be pressured into having children, regardless of their
	37	personal choice The technologies will be used for purposes such as cloning
	45	People are trying to play God
	20	This is too much like science fiction
	15	Other — Specify
11.	to h	h of the following best describes why you think people choose not ave children (assume that they are physically able to have ren)? Check as many as apply
	35	Selfish and do not want to give up things
	46	Concerned about what the future will hold for their child
	21	Believe there are already too many people in the world
	28 55	Are not happy with their partner/spouse
	38	Financial reasons Don't feel they need to have a reason for and 1.
	30	Don't feel they need to have a reason for not having children Do not have partner/spouse
	49	Want a career
	9	Other — Specify

YOUR FAMILY SITUATION

Please read each of the following and complete each section that applies to you personally.

- A. I have children (e.g., adopted, given birth/partner given birth). **Complete Section A (Below)**
- B. I do not have children (e.g., children only related by marriage, never been pregnant, past childbearing years). Complete Section B (page 19)
- C. I am/my partner is unable to have children (physical reasons, other). **Complete Section C (page 20)**

Complete all sections that apply to you personally.

SECTION A: I HAVE CHILDREN (E.G., ADOPTED, GIVEN BIRTH/PARTNER GIVEN BIRTH):

 How many children do you have in each of the following age categories? (write in 0 if none)

% with one child or more in each age group

11	12 months to just under 3 years old
12	3 years to just under 5 years old
24	5 years to just under 10 years old
20	10 years to just under 15 years old
11	15 years to just under 18 years old

Under 12 months

18 years or older

42.

2. Are your children... Check only one box

88	Born to you	5	Both
2	Adopted	5	Other — Specify

- 3. Which of the following reasons were involved in your decision to have children? **Check as many as apply**
 - 20 It wasn't something I really thought about
 - 15 To experience childbirth
 - 20 To pass along the family bloodline

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- 41 It is a necessary part of life
- 35 To help a child grow and learn
- 38 It's just something I expected to do
- 17 Other Specify _____
- 4. Before you had children, to what extent did you feel the need to have children?
 - 45 A strong need 14 Not too much need 32 Some need 6 No need at all
- 5. Before you had children, how much pressure did you feel from others to have children?
 - 2 A lot of pressure

 11 Some pressure

 12 Go to Q6

 Read instruction top of page 19
- 6. Who put this pressure on you to have children? Check all that apply
 - 36 Mother 13 Grandparents 21 Father 33 Spouse 39 Friends 21 Other
- Section B: I do not have children (e.g., children only related by marriage, never been pregnant, past childbearing years): page 19 Section C: I am/my partner is unable to have children (physical reasons, other): page 20

Please answer any other sections that apply to you, otherwise proceed to page 21.

SECTION B: I DO NOT HAVE CHILDREN (E.G., CHILDREN ONLY RELATED BY MARRIAGE, NEVER BEEN PREGNANT, PAST CHILDBEARING YEARS):

- 1. Which of the following best describes why you do not have children? Check as many as apply
 - 33 I am waiting until I am older to have children
 - 15 Because of my career
 - 38 I have not been in a suitable relationship
 - 15 I do not want to have children
 - There is no reason why, it just hasn't happened yet
 - 7 There are enough children and people in the world today
 - 13 I'd be afraid about the future for my child

- 4 I don't think I would be a good parent
 10 I/we cannot have children Please also answer Section C
 20 Other Specify

 2. How strong is your desire to have children?

 26 Very strong desire 21 Not a very strong desire
 28 Somewhat strong desire 14 No desire at all

 3. How much, if any, pressure do you feel (or have you felt) from others to have children...
 - 3 A lot of pressure
 15 Some pressure
 18 Not too much pressure
- 4. Who has put this pressure on you to have children? Check \underline{all} that apply

50 Mother 11 Grandparents 26 Father 15 Spouse

50 Friends 25 Other

- 5. Are you past childbearing years?
 - 9 Yes Go to G6 79 No Read instruction at bottom
- 6. Which of the following best represents your opinion on not having children? *Check only one box*
 - 3 I really regret not having children
 - 6 My life isn't fulfilled because I didn't have children
 - 36 I sometimes regret not having children, but I am generally happy
 - 34 I never regret not having children
 - 5 I still hope to have children someday

Section C: I am/my partner is unable to have children (physical reasons, other): page 20

Please answer Section C if it applies to you, otherwise proceed to page 21.

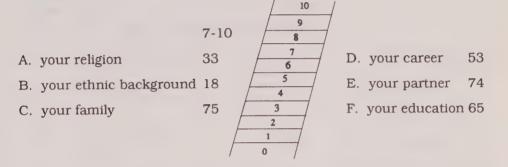
SECTION C: I AM/MY PARTNER IS UNABLE TO HAVE CHILDREN (PHYSICAL REASONS, OTHER):

- 1. Have you ever thought about using any of the following procedures to have children? *Check all that apply*
 - 61 No
 - 14 Yes: AI
 - 7 Yes: IVF
 - 3 Yes: surrogacy
 - 8 Yes: sperm donation
 - 30 Yes: adoption
- 2. Are you trying any of these procedures? Check all that apply
 - 2 No: not involved in any of these procedures
 - 2 Yes: AI
 - 1 Yes: IVF
 - O Yes: surrogacy
 - 1 Yes: sperm donation
 - 6 Yes: adoption
- 3. If you have used or you are trying any of the procedures, do you have any comments about your experience?

Pleased with adoption process	2% (N=4)
Pleased with reproductive technologies	2% (N=3)
Adoption process too slow	2% (N=4)
Would like to adopt again	1% (N=1)
Other	6% (N=9)

WHAT'S IMPORTANT IN YOUR LIFE

1. Below is a ladder that you can use to indicate how much **influence** each of the following has on your decisions that you make in your life. The **higher** up the ladder you go, the more influence it has on your decisions. For each item, please give a number from the ladder, and record the number on the line next to it. **Please answer A-F (each number can be used more than once)**



2. How often do you undertake each of the following activities? Check only one box for each activity

	Five to One to							
	At least once a	At least once a	ten times per	four times per	Less than once a	L		
		month	year	year		Never		
Visit friends/relatives	60	26	7	4	1	0		
Go to a religious service or ceremony	20	10	10	22	22	14		
Drink at a bar	6	14	13	21	16	28		
Attend classes/lectures/seminars	12	7	14	24	20	20		
Grocery shop	72	17	4	3	1	2		
Attend a professional sports event	4	5	12	25	27	23		
Eat at a restaurant	24	44	20	9	2	1		

Talk to other people about your religion and religious						
views	8	13	12	18	22	26
Give blood	0	0	1	10	20	60

3. What is your level of involvement in each of the following? Check only one box for each

	Very high		<u>Moderate</u>	Low	Very low	No involve- ment <u>at all</u>
Political parties or political causes	1	3	11	12	17	55
Women's groups or causes	1	2	10	11	14	58
Local community groups	3	7	21	15	17	35
Social agencies	2	4	13	13	17	47
Children's groups (such as girl guides) or sport teams	5	6	13	10	12	51

ABOUT YOURSELF

And finally, so that we can compare the answers of different groups of people, the following questions are about you and your household. Your answers are strictly confidential.

1. Are you a ...

40-44 years

	49	Man	51	Woman
2.	What	is your age?	Check one box	
	15 13	18-19 years 20-24 years 25-29 years 30-34 years 35-39 years 40-44 years	6 5	45-49 years 50-54 years 55-59 years 60-64 years 65 years or older

- 3. Are you in school, either full-time or part-time, right now?
 - 8 Yes: Full-time 7 Yes: Part-time 85 No: Not in school
- 4. What is the highest level of education that you have completed? (If you are in school, please indicate at what level you are.)
 - 5 Grade school (Grade 1-8)
 - 16 Some high school
 - 23 Graduated high school
 - 22 Community/technical college/CEGEP
 - 12 Some university
 - 11 Graduated university
 - 7 Professional degree
 - 5 Post-graduate university (Master's degree, Ph.D.)
- 5. Are you... Check only one response
 - 10 Self-employed
 - 38 Employed full-time for pay
 - 10 Employed part-time for pay
 - 12 A homemaker
 - 13 Retired
 - 7 Student
 - 6 Currently unemployed but looking for employment
 - 1 Currently unemployed but not looking for employment
 - 2 Not employed due to disability
- 6. Which category includes your personal annual income for 1991 (before taxes) from all sources?

21	Less than \$10 000	6	\$50 000 - \$59 999
19	\$10 000 - \$19 999	3	\$60 000 - \$69 999
18	\$20 000 - \$29 999	1	\$70 000 - \$79 999
16	\$30 000 - \$39 999	1	\$80 000 - \$89 999
11	\$40 000 - \$49 999	2	\$90 000 or over

4 No income

7. Which income category includes your combined household income for 1991 (before taxes) from all sources?

6	Less than \$10 000	12	\$50 000 - \$59 999
11	\$10 000 - \$19 999	8	\$60 000 - \$69 999
14	\$20 000 - \$29 999	6	\$70 000 - \$79 999
15	\$30 000 - \$39 999	5	\$80 000 - \$89 999
14	\$40 000 - \$49 999	8	\$90 000 or over

2

0

Douche

Natural Family Planning

18

2

IUD

Birth control pill

	2 2 18	Diaphragm Foam/gel/cream Condom		5 4	Abstinence Withdrawal
3.		you or your partner ha hat apply	ad any	of t	he following procedures? Check
	13 18 15 58	Hysterectomy Tubal ligation Vasectomy Have not had any of t	hese j	proc	edures
4.	Have	you signed an organ of	lonati	on c	ard of any sort?
	46	Yes	54	No	
15.	How to rea		he en	clos	ed definition sheet were you able
	□1 □2	Most Some	□3 □4 □5		
		Ar	ny Cor	nme	nts:

Notes

- 1. The method of weighting down was adopted to allow inferential statistics to proceed without the violation of important assumptions.
- 2. The following seven questions comprised the religiosity index:
 - Importance of religious beliefs in daily life (11-point scale least important to most important);
 - "It would do Canadians a lot of good if we had more religious values in our lives" (seven-point scale — strongly agree to strongly disagree);
 - "We have reached a time when we all need to reach out to God for help" (seven-point scale — strongly agree to strongly disagree);

- Support for/opposition to screening access to reproductive technologies for "people who are not of a mainstream religious denomination" (seven-point scale — strongly support to strongly oppose);
- Influence of religion in daily life (11-point scale least influence to most influence);
- Frequency of attending religious service or ceremony (six-point scale at least once a week to never); and
- Frequency of talking to other people about religion and religious views (six-point scale at least once a week to never).
- 3. The remaining 5% of the respondents who said they had children failed to identify the type of relationship to the children (contrary to directions provided in the Interview Schedule, see Appendix 2), or reported they had children because of the presence of stepchildren.
- 4. Thirteen percent of those who reported they had no children and 6% of those who reported they had children completed this section of the questionnaire.
- 5. The percentage of respondents in each cluster group reported in this section will differ slightly from the percentages in each cluster group reported in cross-tabulated tables due to varying non-response rates for different survey questions.



Social Values and Attitudes of Canadians Toward New Reproductive Technologies: Focus Group Findings

Decima Research



Introduction

Decima Research is pleased to present to the Royal Commission on New Reproductive Technologies the following report on findings from focus group research. A total of 10 focus groups were conducted: four in Toronto and two in each of Vancouver, Montreal, and Halifax. Given the nature of the topic of the focus group discussions, the decision was made that the groups be composed of only women or only men. To ensure that the views of visible minorities were represented throughout this research, it was decided that one group in each centre would be composed of only visible minority Canadians. In addition, two groups (one with women, one with men) of Aboriginal Canadians were conducted in Toronto. It should be noted that visible minority representation was also included in those groups composed of the general population. The composition of the groups in each centre was as follows:

This paper was completed for the Royal Commission on New Reproductive Technologies in December 1991.

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Toronto: • Visible minority men

General population women

Native men

Vancouver: • Visible minority women

General population men

Montreal: • Visible minority men

General population women

Halifax: • Visible minority men

General population women

The focus group agenda included a number of issue areas, which are discussed below.

General Attitudes Toward "Family"

Important Aspects of Life

In order to understand the context in which participants were discussing issues related to the family, focus group discussions began by identifying and addressing the single most important aspect of a participant's life. Despite the different compositions of groups and different locations, responses to this off-the-top-of-the-head question were quite consistent. The most frequently mentioned aspects of participants' lives in response to "What is most important to you?" included their family, their work or career, and their health. It is also interesting to note that in referring to "family," participants were usually thinking of their children.

There were more differences in response between genders than between groups. Women, whether they were recruited from the general public or from visible minorities, were more likely to mention their family and good health as the most important aspects of their lives. There was more of a tendency among men to mention their job or career and "being able to make money" than to mention their family. One typical comment was "My business first, and then my family."

The Meaning of Family

First Image/Association

Participants were asked to write down the first word or thought that came to mind when they thought of "family." Consistent themes that emerged among women included notions of "warmth," "love," and "feelings." Men, particularly men from visible minorities, were more likely than women to think of family in terms of some sort of "support" — that is, financial and emotional support. For example, men were more likely to note that people

have a responsibility, when they become adults, to "support" their parents. Overall, the difference between men and women appeared to be that women viewed family in emotional terms while men appeared to think of family in more structural terms. Typical comments included "Being there for you," "Very important," "Life line ... my family is my life line ... they've always been there for me," and "Security ... I'd like to have an environment that is safe and secure ... to ensure kids are emotionally sound."

Other associations made with family, though mentioned less

frequently, included "communication" and "happiness."

Some responses from participants made specific reference to individuals in the family such as their children, parents, mother, or wife. Clearly, there was a greater tendency for participants to associate family with a woman, either a wife or mother, than to associate family with a man, either a husband or father. In fact, while several participants associated family with their "parents" and a number associated family with their "mother" alone, not one participant mentioned his or her "father" alone. This suggests, from the onset, that the extent to which men and women are linked to the family may differ.

As noted above, there was little variation in the comments made between the general public, visible minority, and Native groups on this

issue.

Definitions of Family

Traditional Definitions of Family

When asked to define the structure of a family, most participants first referred to the traditional nuclear family of a married heterosexual couple with children. To illustrate, a typical response to this question was "The husband, wife, and children ... that's a family."

The presence of children emerged as quite fundamental to many participants' ideas of what constituted a family. On a number of occasions, participants made the distinction between a "couple" and a "family." As one participant quite adamantly stated, "A family has to have kids."

Several participants differentiated between an immediate family and an extended family. For most participants the immediate family consisted of his or her partner and their children, while the extended family consisted of grandparents, aunts, uncles, and cousins.

Non-Traditional Definitions of Family

Although the traditional nuclear family generally came to mind, a number of participants commented on "new" or alternative definitions of family. One participant made reference to the television series "Kate and Allie" as an example of a "family" that involved two women who are raising their children in the same household. Other, usually younger, participants ventured beyond the traditional definition of family to suggest that close friends living together in a household can also constitute a family. As one

participant in Montreal noted, "A family is people you feel good with, not necessarily the relatives, it could be friends or a group." Along this same line, a Vancouver participant noted that "people who love you, not necessarily your blood relatives ... could be good friends." In addition, one participant in Toronto noted that the close friends that had immigrated to Canada at the same time as he and his wife were considered family in a sense, and their children regarded their friends' children as cousins.

Members of the group of visible minority women in Vancouver were quite aware of the cultural diversity of their communities and the different values and structures each group assigns to a family. As one participant noted. "Vancouver is made up of people from communities all over the world, and a lot of these communities have their own rules ... it's difficult to identify a common norm."

Participants generally agreed that a single parent constitutes a family. Again, it was explained that the arrangement constituted a family because children were involved. On this topic, a number of participants noted a marked increase in the number of single-parent families today, compared to 10 years ago. While participants did not believe children were worse off growing up in a single-parent household — assuming the parent was a "good" parent - some concern was raised about the pressure, both financial and emotional, that a single parent faces.

In contrast, when asked whether a gay or lesbian couple constituted a family, remarks were quite mixed. Visible minority men were most vocal in their opposition toward this arrangement and most likely to reject the idea that homosexual couples could be considered a family. To illustrate, comments from those who did not believe homosexual couples constitute a family included "They're a couple, not a family"; "They're missing a woman ... or they're missing the man, so they are incomplete"; and, again making reference to the importance of children in the definition of family, "Because they cannot reproduce, they can't be called a family."

Other participants, conversely, acknowledged that indeed homosexual couples could constitute a family. As one participant who was quite aware of the changing definition of family noted, "Now when I think of a family image, there are a few adults and there are some kids ... who or what sex those adults are ... they're just adults." Another participant questioned, "Why shouldn't they be considered a family?"

An "Ideal" Family?

The general consensus, particularly among participants recruited from the general population, was that no one single type of family structure was "ideal" for the well-being of children. As one participant noted, "What is important is how you bring them [the children] up ... and the morals you teach them."

As the previous quote indicates, one of the underlying attitudes regarding the importance of family was the sense that the family is the vehicle through which values are passed on to children. When probed,

examples of specific values that should be communicated and learned through the family included "respect for others," "self-respect," "decency," "how to work hard," and "religion." However, there was some concern regarding the extent to which this was occurring.

Several participants expressed the sentiment that families are, in a sense, not as strong as they used to be. As one participant noted, "Something has gone definitely wrong ... why are there all those kids on the street now?" One of the reasons offered to explain this was that values are in fact not being communicated or taught by the family as they used to be. One participant from a visible minority group noted, "Parents — they don't teach their children principles, discipline, and values any more." As another commented, "No one is passing these values [on] to children because there's no one at home to pass them on."

How Families Have Changed

In continuing discussions of family structure, it was widely recognized by participants that the family structure has changed over the past few years. Many believed that the changes in the family were due to the economy, divorce rates, and the sense that we have, as a society, become more materialistic. As discussed below, it was interesting to note differences in the opinions of Native Canadians compared to others in this regard.

Economy

Quite consistently across all groups, participants pointed to the economic demands placed on families as a major factor in understanding recent changes to the family structure. There was broad awareness of the necessity of two incomes in a household and the additional pressures this places on the family. As one participant noted, "Twenty years ago, you only needed one person to work, now you need two." One of the consequences of the two-income family was the lack of time, or, it was noted, the lack of quality time, parents have with their children. In addition, some participants spoke quite negatively of children returning to an empty house after school.

A participant of East Indian background noted that one of the consequences of the economic demands placed on families is that people now have to be concerned with the number of children they can afford to have, whereas this was not a concern for his parents.

Divorce Rates

In addition to the changing economic demands placed on families, divorce rates were also cited as changing the nature and structure of the family. Many participants, most notably from visible minority groups, suggested that one of the reasons for the escalation of divorce rates was the lack of understanding about what being committed to another person means. A participant from Africa offered the following observation: "I can

compare the way people here view family compared to in Africa, and here. there's a lack of commitment ... if things don't work out with one person. you leave and try again ... people just walk away."

Further, several participants noted that we have, as a society, become more materialistic, and this is, as a value, being passed on to children. One participant noted that his children have much higher expectations of what they need, in terms of "designer clothes" and the "latest toys." As one participant commented, "Everyone wants so much more ... we want everything now."

Native Canadians

Among Native men, a number of participants noted that Native families used to "share a lot more" in the past than they do now. As one participant noted. "There used to be more of a sense of community." It was explained that families would help each other in farming their land or hunting together. However, this way of life changed as people moved from reserves into the cities and urban communities.

Further, some also noted that the role of the Elders has changed. In more traditional times, Elders played an important role in passing down the culture and the heritage of the Natives. Now, however, outside of the reserve, there appeared to be a void. Comments included "I don't know who passes down the stories now," and "I'm looking for an Elder to help my daughter learn the Native ways."

Having Children

Reasons for Having Children

Among women participants who had children, clearly defined reasons for having children were few and far between. Unquestionably the most popular response to why those who had children had them was that "it just happened." Even after probing, participants found it difficult to state any reasons for their having children.

For many women, having children was largely viewed as one of many stages in the life cycle that did not necessarily require any explanation or reason. Examples of comments include "... it's just what you do. You grow up, you get married, and then you have children," and "It's just natural instinct to have children." Although predominantly expressed by women, one man in Montreal did offer a similar sentiment and noted, "It just happened ... if I could have made the decision, I would not have had any, but here I am, and I have two of them!"

Men, especially those from visible minority groups, commented on the importance of having children to continue their "life line." participant from a Chinese background noted, "The fullest expression of love is mating ... and also it follows that you have a strong sense of mortality ... you want to keep your life line going through your children." In addition, one man in Montreal commented, "Especially here in Quebec, it's a responsibility that we have here because of the situation of this province."

The financial aspect of having children played a greater role in the attitudes of men as compared to women. That is, having children was more likely to be viewed as an economic decision for men. To illustrate, in general, comments from men regarding reasons for not having children made reference to their ability, or inability, to financially support a child and family. As one participant who did not have any children explained, "Work is just too unstable." In a similar vein, another man who did not have children noted that he would like to have children if, and only if, "I meet the right person and I'm financially independent."

Decision Not to Have Children

It was widely recognized that the decision to have children or not to have children was a personal one.

There were a few participants, more notably from the visible minority community, however, who rejected the notion that a couple who were capable of having children could decide not to. As one man noted, "If everyone does that, what will happen to the world?" One woman commented that she felt that "it would be selfish for a couple not to have children."

Interestingly, participants were more accepting of a couple's decision not to have children if the basis for the decision was economic. However, participants were more critical if the reason was based on their lifestyle or because they "didn't have the time." To illustrate, one man noted, "I don't think that's [time involved in raising children] a valid reason ... if it was an economic reason, that's different."

Many participants, however, simply viewed a couple's decision not to have children in the context of a personal choice, as opposed to any greater responsibility people have to procreate. The following serves as a typical comment: "If they are of the mind that they don't want to be parents, then that's acceptable to me."

What If You Couldn't Have Children?

Adopting Versus Medical Intervention

Participants across all groups generally agreed that in the event that they were unable to conceive, they would seek medical help prior to starting any procedures to adopt a child. There seemed to be an underlying trust in the medical profession that help was available and that medical "experts" would be able to provide the necessary advice on how to proceed.

It became quite evident that participants were looking to medical professionals to help them conceive their own biological children, prior to

Although most participants indicated that they would seek medical help first, they did not rule out the option of adopting a child. However, some concerns about adopting children were raised. One participant noted that she would be less likely to adopt a child because of concern that her other natural child would receive less attention, and that she had "... heard a lot of cases where an adopted child caused trouble."

Interestingly, very few participants said they would simply accept the fact that they could not have children and do nothing.

Importance of Having Biological Children

Quite pronounced throughout the groups was the importance participants placed on having their own biological children. However, it was interesting to note that men and women cited different reasons for this. Women across all groups were more likely to attribute the importance to the actual experience of giving birth. Comments from women, regardless of whether they currently had children, included "I would like to experience having my own ... for the actual childbirth process"; "It's just something I want to go through"; "It's an experience in your life that you have to go through, if you can ... you should"; and "It makes you a total woman."

Men, on the other hand, were more likely to be concerned with having their own biological children in order to "pass on my genes." The fact that the child would be genetically linked appeared to be of greater importance for men. That is, the idea of a "bloodline" was mentioned to a greater extent. Among visible minority men, the idea of having children to continue their "family line" was somewhat more pronounced. Interestingly, among Native men, a few participants commented that an adopted child would not have their "spirit," suggesting that it was important to have a biological child in order to pass on that spirit to the following generations.

Other Issues for Adopted Children

There was little doubt in the minds of most participants as to the importance of a child knowing who his or her biological parents are. Reasons for this importance varied from simply understanding why you don't look like your social parents, knowing the health records of your biological parents, and overcoming any feelings of rejection, to ensuring that you "don't end up marrying your brother." It was viewed not only as important but also as a fundamental right for an individual to know his or her biological parents.

One participant, who was in fact adopted, felt quite strongly that an adopted child should know his or her biological parents, noting that adopted children have to deal with the sense that they have been "given up."

Attitudes Toward a Couple with No Children

Participants were asked what their initial thought or reaction would be upon meeting an older couple who did not have any children. Many participants, particularly men, were of the opinion that there would be some reason why the couple could not have children. A participant of Chinese heritage, somewhat more critical, commented, "I would think they were selfish — people who are capable of giving birth and decided not to."

Some participants commented that they would assume the couple had simply made the conscious decision not to have children. As one participant explained, "Because I've made the conscious decision not to [have children], I'd assume they made the decision not to." It is interesting to note that this participant had decided not to have children because "during the '60s, I wasn't sure how much of a future there was going to be."

Deciding Who Can Be a Parent

General Attitudes

Although attitudes toward whether "society" should say who can and who cannot be parents were quite polarized, most participants disagreed with the idea of "society" deciding who can and who cannot be a parent. Typical sentiments expressed across all groups, including comments from the Native groups, included "Who would have that right to decide who can have a child and [who] cannot?" and "It goes against our understanding of freedom." Another participant noted that "[deciding who could/could not have a child] would go against the Charter of Rights to do that."

Among the minority who were more accepting of the idea of society deciding who can and who cannot be a parent, there was the sense that parenting is different today than in the past. One participant suggested that we, as a society, can no longer assume that people have the knowledge necessary for raising children. The comment followed that "For every other position in society, we make damn sure people are qualified, but we let anyone be parents ... I really feel there's a lack of really good parents children can model themselves after." Other comments included "It's the same with adoption. Not just anyone would be able to adopt a child, you have to have some sort of income," and "Yes, they should have some sort of guidelines."

When those who suggested that some people should not be allowed to have children were probed to comment in what instances or under which circumstances this could occur, two consistent comments emerged: namely, that those with acquired immunodeficiency syndrome (AIDS) and

Access to New Reproductive Technologies

Despite the fact that most participants viewed any restrictions on who could or could not have children as a violation of human rights, fewer viewed restricting access to new reproductive technologies as a similar violation. Interestingly, in discussions of limiting access to new reproductive technologies, some participants were of the opinion that when using these technologies to conceive, "parenting should be seen more as a privilege" than as a natural right.

Some mentioned the necessity of restricting access only to those with a strong "moral" background. However, participants were unable to define what "moral" background meant or how it could be evaluated. In trying to explain "morals," participants' comments ranged from aspects of organized religion and spirituality to "simply being able to cooperate with others."

Concerned about the "quality" of parents in society, a number of participants, predominantly in Vancouver and Halifax, suggested that prospective parents wanting to use new reproductive technologies be required to take a course in parenting prior to undergoing any medical intervention. This idea of educational programs being available to prospective parents was received quite favourably by others. The understanding was that when a couple approaches medical professionals for help in having a child, the medical professionals would require the individuals to enrol in a course on parenting.

Overall, participants seemed more accepting of a single woman having access to new reproductive technologies than of a homosexual couple. Those who did not believe that homosexual couples constituted a family were more likely to argue in favour of restricting access to homosexual couples. However, in opposition to this opinion, one participant retorted that "you just can't say some people can use this technology and some people can't ... that's just not right."

Technology and the Sex and Health of the Fetus

Sex of the Fetus

Preference of Sex of the Child

When asked whether society places a higher value on boys or girls, most participants across all groups were of the opinion that parents generally would be happy with either. Further, most were hesitant to suggest that "society" attributed more importance to boys or girls. However, it was widely recognized that in the past boys have been more

important but that this was no longer the case. As one participant remarked, "I think in the past boys were more highly valued, but not any more."

There were, however, some participants who noted that people from other cultural backgrounds may feel differently. As one woman from a visible minority noted, "In my family there's no difference ... but in other Indian families there's more importance on boys." It was explained that the reason for this great importance being placed on boys was because, traditionally, sons support their parents, while daughters help support the parents of their husband. Further, as one man of a visible minority group noted, "Canadian society doesn't [place higher value on boys or girls] but I do ... I would prefer to have a boy, because males are supposed to be better ... they're considered more important."

Among those who acknowledged that boys were possibly viewed as being more important than girls, a number of comments were made that touched upon the fact that men pass on their name to following generations through their sons. Interestingly, this was more of an issue for the men than for the women. Comments from a couple of men included "I would prefer a boy first, then a girl ... someone to pass the name on," and "It's a pride thing to continue the line ... it's just a question of personal pride ...

maybe it will change if more women keep their maiden name."

It is interesting to note that women in one group, throughout the course of discussion, decided that men were the source of any differences society places on the importance of boys and girls. That is, the higher the importance men place on boys, the higher the importance "society" places on boys.

Among Native women participants, there was a general consensus that Native parents place a higher value on boys, the reason being that in traditional families boys are the ones who learn how to trap and become Chiefs. Native men, however, were more likely to comment that there were very different roles for men and women, without suggesting that one was more important. As one man remarked, "There are roles for women and there are roles for men ... they are both important." Along these same lines, men from visible minority groups were more likely to acknowledge that men and women play different roles in the family.

Choosing the Sex of the Child

Participants were informed that technology that can determine the sex of the fetus currently exists and that in the event that the parents were not satisfied with the sex of the fetus, one option that could be available to the

couple would be to terminate the pregnancy.

Despite the fact that most participants did not believe society places more importance on boys than on girls, it became evident through the discussion of deciding upon the sex of an unborn child that the option of terminating the pregnancy would be entertained only if the fetus were found to be female. That is, unprompted, most participants believed the

logical implication of any use of this technology would be that fewer girls would be born and that the preference for parents would be for boys.

Clearly, most participants believed there was something "morally" wrong with terminating a pregnancy depending on the sex of the fetus. To illustrate, comments from those against choosing the sex of the child include "No one has the right to choose"; "It's just very wrong"; "That's manipulating with God's system"; "If my parents did that, I [a woman] would not exist today"; and "It'll be worse for women if there are more men around." In addition, one Native woman noted that "you're telling the Creator that what he's doing isn't good enough ... it's up to the Creator to decide."

It should be noted that during the discussions there was pressure from participants in the groups to reject this idea — that is, to accept this notion outright would not have been "politically correct." However, there was one man who did suggest that terminating a pregnancy if the fetus was determined to be female was acceptable if the couple "... already had five daughters."

Health of the Fetus

Several participants were concerned about the implications of terminating pregnancies in those instances where the fetus was not "perfect," that is, if it was determined to have a genetic disease or disability. In terms of the ethics of this type of procedure, one participant commented, "I don't think it's our place to make judgments like that ... to decide what kind of child deserves to live and which doesn't." Several participants were quite convinced that, outside of any technological developments, "nature has a way to terminate a pregnancy if there is a real problem."

Some participants, however, commented that they did not feel they could handle the emotional or financial stress of raising a child with a severe genetic disease or disability. One participant in favour of terminating a pregnancy if it was determined that the fetus had a genetic disease or disability noted, "It [the child] would be a burden for society ... an economic burden." Others willing to entertain the possibility acknowledged that "it would depend on the severity of the handicap."

It is interesting to note that a baby born with a disability is viewed, in Native society, as having a "special" relationship with the Creator and that in fact the Creator has separated him or her from the rest.

Despite the mixed reaction to this notion of terminating a pregnancy if the fetus is found to have a genetic disease or disability, participants generally agreed that the decision should be made by the woman and/or the man involved, as opposed to an outside person such as a doctor.

It should be pointed out that attitudes did vary according to attitudes toward abortion in general. To illustrate, one participant against this idea commented, "I'm a pro-lifer, so I'm really against this sort of thing."

Alternatively, another participant noted, "I'm in favour of having the choice of abortion, so I don't have a problem with this ... it's a question of choice."

Other Issues Involved in New Reproductive Technologies

Concerns and Implications

General Attitudes

Despite the fact that most participants spoke quite adamantly about the importance of having their own biological children, when the discussion turned more directly toward new reproductive technologies, some questioned the need for these, as they felt there were so many children who needed to be adopted. As one participant noted, "... there are so many children out there that need a home." What appeared to be occurring in the discussion was that while participants believed "minor" medical interventions, such as fertility pills, were acceptable, they were less enthusiastic about more involved procedures, especially those involving anonymous "sperms," "eggs," and other individuals.

Most men rejected outright the notion of their partner being impregnated with another man's sperm. The concern was that their partner

would be sharing a child with another man.

Several participants expressed concern over technology involving a surrogate mother. The bond created between a woman and a fetus during pregnancy seemed to be at the root of the concern. Few participants questioned the existence of that bond. Commenting on the relationship between the "social" mother and the child, one participant noted that "the attachment cannot be the same ... it only happens if the woman carries that child."

The fact that money might be involved concerned some participants. For some, there was something fundamentally wrong with the notion of paying a woman to carry a fertilized egg to term. As one participant noted, "It's turning into a scam now ... people are making money carrying other people's children to term."

It is interesting to note that women in Halifax appeared to be more accepting of reproductive technologies and of surrogacy if the other people involved were family members. For example, if the surrogate mother was the woman's sister or if the sperm donor was a member of the male

partner's family, then that would be more acceptable.

Others were concerned about the implications of the development and usage of these technologies for society and for women. As one younger participant noted, "It'll be like *The Handmaid's Tale* ... the rest of their [the women's] life will be taken away from them." Further, in the event that the technologies are not able to help a woman conceive, there was the sense that "... you leave the woman in a worse state than when she started."

Multiple-Parent Scenario

To further probe attitudes toward some of the implications of the new reproductive technologies, participants were informed that with these technologies it could be possible for a child to have five "parents": the woman who donates the egg and the man who donates the sperm (the biological parents); another woman who carries the zygote to term (the surrogate mother); and the two parents who then raise the child (the social parents). Perhaps not surprisingly, most participants viewed this scenario as almost comical and as rather unbelievable. As one participant noted, "Identity crisis or what!"

Others viewed this scenario in terms of ownership of the child. One participant remarked, "They [new reproductive technologies] create a lot of issues of ownership ... it gets very complicated." Another participant who rejected this outright quite simply stated, "They're just messing around with nature."

Pressure on Women

Pressure to Conceive

With the exception of participants in Quebec, most participants, men and women alike, when asked outright, rejected the idea that there was any significant pressure placed on women by society to have children. However, there were several indications throughout the course of the discussions that suggested otherwise. Perhaps the clearest example came from a woman of Asian background in the Vancouver group. She informed the group that she almost died giving birth to her second child and that her doctor has informed her that she would likely die if she were to have another child. The reason for her not undertaking a tubal ligation was, in her own words, "Guilt. I feel guilty because my husband is seven years younger than I am ... he is the only son in his family and they [his family] want more boys to carry on the name."

Further, while still denying any pressure on women from "society," one participant noted that it does depend on the cultural background of the woman and the man. As another participant noted, "I don't think it's expected, but it depends on the culture."

Again denying pressure from "society" on women to have children, several participants acknowledged that parents and other family members can often put pressure on women to have children. Comments from visible minority participants included "My parents wonder why I don't have children yet ... you know, they tell me I'm getting up there, the biological clock is ticking"; "It's different now, but they used to look upon a woman without children as barren"; and "Parents look at it differently."

Some participants noted, in addition, that the age of the woman contributed to the pressure she may feel regarding having children. As one

participant explained, "The older you are, the more expected you are to get married and have kids."

Many participants believed that women put pressure on themselves to have children. That is, the pressure to have children is internal rather than external. As one man explained, "I think the pressure is self-created."

In comparison to others in Canadian society, one Native man noted, "There's not that concern about Native women having children ... not like the pressure for other women to have children." However, others among the Native men noted that there was a "natural order" to having children, and that there was in fact pressure from both one's immediate and one's extended family.

Interestingly, some participants in Montreal believed that "in Quebec there is [social pressure on women to have children]." Referring to the social assistance available to women who have children, one participant retorted that "it's not pressure, it's just an incentive."

Other Pressures on Women

While many participants did not recognize any pressure on women to have children, most acknowledged other types of pressures on women today. Most participants, but especially women, recognized that women are now faced with the economic pressure of earning a living and the familial pressure of ensuring the well-being of the children. Clearly, there was the perception that women have to give much more of themselves now than in the past. To illustrate, comments from men and women included "Women are expected to do far too much"; "No room [for women] to lead a comfortable life"; and "She's not complete if she's just a career woman, and she's not complete if she's just a stay-at-home woman."

While there was the sense that men are starting to help out in sharing the responsibilities associated with raising children and maintaining a household, several women alluded to the fact that this has not yet been realized in practice.

More Control to Women?

There were mixed reactions to the question regarding whether or not women were gaining more control, or losing control, with the advent of new reproductive technologies.

Interestingly, however, men were more likely to believe women would gain more control through the development or further development of new reproductive technologies. As one man commented, "If they don't want relations with men, they can use that [a sperm bank]." One woman did note that "knowledge is power," suggesting that information surrounding the development of these technologies is empowering women.

Several participants were sceptical of the notion that women would gain more control with the onset of new reproductive technologies. One woman noted that there would be "more control in terms of options ... but they [the technologies] are taking away control because that purpose is being pushed and marketed on them."

Public Spending on New Reproductive Technologies

There was mixed reaction to the idea of public funding financing the use of new reproductive technologies. Clearly, however, participants were largely unaware of the full cost involved in using these new technologies.

Several participants expressed some concern that if the government does not pay for the use of the new reproductive technologies and instead they become user-pay, then we, as a society, would be encouraging an elitist system. As one participant from Halifax put it quite succinctly, "If you're rich and infertile, that's O.K., but if you're poor and infertile, you're out of luck." Similarly, one Native participant noted, "It's either for everyone or for no one."

One participant against public money being spent in this area summed up her view with the comment, "For me, it falls in the category of cosmetic surgery." Supporting a user-pay system, another remarked that "if they want it bad enough, they'll pay for it."

Key Findings

- Focus group discussions began by addressing the single most important aspect of a participant's life. Responses consistently included family, work, and good health. Gender differences emerged, as women across all groups were more likely than men to refer to family, while men were more likely to mention their career or work.
- Differences between men and women also emerged in discussions of "family." While women were more likely to discuss the importance of family in emotional terms, such as providing warmth and feelings, men were more likely to discuss family in structural terms, making reference, for example, to support systems.
- Although most participants first defined "family" in terms of the traditional nuclear family (a heterosexual couple with children), many recognized alternative relationships that now qualify as a family. These included, for example, single-parent households and unrelated adults living in the same household. There was clearly the sense that the number of non-traditional families was increasing, most notably the incidence of single-parent households. In addition, participants noted alternative "families" present in the media, including programs such as "Full House" and "Kate and Allie."

Throughout the course of discussions on definitions of family structures it became apparent that, in most participants' minds, one of the prerequisites for a family was the presence of children.

- Participants in most groups commented on a woman's changing role within the family. That is, participants, especially women, recognized that in addition to the familial pressure of ensuring the well-being of the family unit, women today are also faced with the economic pressure of earning a living. Although many women noted that men were playing a somewhat greater role in sharing household responsibilities, most admitted that women still do a greater share of the work than their male counterparts.
- There was widespread agreement that one of the fundamental roles of a family is to ensure that values are passed on to children. Clearly, there was the sense that families today are not fulfilling this role to the extent that they did in the past. Further, Native Canadians noted that there have been changes in the extended family and in the extent to which families assisted each other. With respect to changes in the extended family, many noted that a void exists because Elders no longer play the role in Native societies of passing the culture on to the younger generations.
- Reasons for having children were not clearly articulated among women in the focus groups. While some referred to the actual experience of childbirth, most, especially those participants who had children, commented that having children was simply part of the life cycle. Many expressed the sentiment that having children is simply a natural progression: you grow up, get married, and have children.

Men were much more likely to note the importance of having children specifically to continue the life line and pass on family genes. In addition, they were also more likely to note the economic demands of having children, commenting that they would want to be financially secure before having children.

- There was widespread agreement among participants that the decision to have children was a personal one. However, when probed, it became clear that economic reasons for not having children were much more acceptable to participants than social reasons, such as not having the time to raise children or simply not wanting children.
- Quite consistently, participants stated that they would seek medical attention in the event that they were unable to conceive. However, they were not referring to medical intervention necessarily, but rather to what they believed would be expert advice on how to increase their likelihood of conceiving. As one woman noted, "Maybe we're just not doing it right."

While participants spoke positively about minor medical interventions such as fertility pills, they were much less likely to support options of more involved technological interventions, such as artificial insemination and surrogate mothers. In fact, any procedure that involved a third party's sperm or egg was questionable for most participants. For virtually all men, the option of their partner being impregnated with another man's sperm was of particular concern.

In discussing the option of using a surrogate mother to carry a fetus to term, three areas of concern emerged quite consistently. First, most participants were concerned about the special bond created between a woman and a fetus that the social mother would not share with a child she did not carry to term. Second, there was some concern about the fact that money would be involved in using a surrogate. That is, there was the sense that the practice would turn into a "scam." Third, many women in the groups expressed some concern that widespread use of surrogate mothers would have an adverse effect on women overall, resulting in a society resembling that depicted in The Handmaid's Tale.

Most participants were not opposed to the option of adopting a child. though quite clearly their preference was to explore options of conceiving their own biological children prior to starting proceedings to adopt. Participants unanimously agreed that adopted children have a right to know who their biological parents are. Knowing one's biological parents was believed to be essential for the child's psychological well-being, as well as for medical reasons.

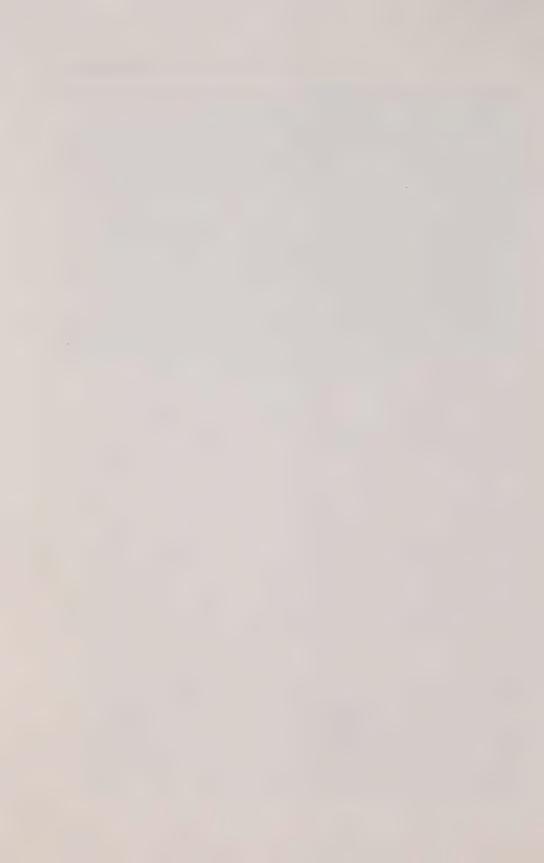
Very few, if any, commented that they would in fact "do nothing" if they were unable to have their own children.

- Most participants were opposed to the idea of "society" deciding who can and who cannot be a parent. This violated what many perceived to be a natural right and went against their understanding of freedom.
 - There was a minority of participants who were somewhat accepting of this idea. The basis for their support for "society" deciding who can be a parent was the perception that parenting is different today than it was in the past and that we can no longer assume that everyone has the necessary parenting skills.
- Although the majority of participants were opposed to the idea of "society" deciding who can and who cannot be a parent, fewer were opposed to restricting access to new reproductive technologies. That is, access to new reproductive technologies was viewed more as a privilege than as a right. Many expressed the opinion that couples who could financially support a child and those with strong "moral" backgrounds should have access to the technologies. Participants were less likely to oppose the idea of a single woman having access to

new reproductive technologies than to oppose the notion of homosexual couples having access.

 Although most participants agreed that in the past society has placed a higher importance on having boys as opposed to girls, fewer believed this was in fact the case today. Men from visible minority groups and Native participants were more likely to recognize this as still being the case.

Despite the fact that many participants rejected the idea that society places more importance on having a boy than a girl, this was contradicted in later discussions when participants were asked directly. Participants were informed that technology that reveals the sex of the fetus exists and that a possible option could be to terminate the pregnancy in the event that the fetus is not the preferred sex. It became evident through the discussion of this that the option of terminating the pregnancy would be entertained only if the fetus were found to be female. That is, the implication of use of this technology, for many participants, was that fewer girls would be born, as the preference of parents would be for boys.





Key Findings from a National Survey Conducted by the Angus Reid Group: Infertility, Surrogacy, Fetal Tissue Research, and Reproductive Technologies

Margaret de Groh



Executive Summary

This national survey, conducted by the Angus Reid Group, was designed to explore Canadians' awareness, understanding, and opinions on issues concerning reproductive technologies and various assisted conception practices. The following is a synopsis of the findings based on the public opinion survey and supplemented by findings from initial focus group sessions. Trends were analyzed based on the variables of gender, age, region, education, and income.

Before considering specific reproductive technologies and practices, the Angus Reid survey also considered some general issues related to infertility — its perceived prevalence in Canadian society, awareness of methods to address infertility, and expected personal behaviour of respondents if faced with problems conceiving a child.

There are many different ways of operationally defining infertility and it is often difficult to ensure that those making prevalence estimates have adopted the same definition. Generally speaking, results of the survey suggested that slightly more than one-third of respondents either greatly over-estimated the prevalence of infertility among Canadians (as

affecting 30% or more of the population) or failed to provide a prevalence estimate at all. About one-third estimated the prevalence of infertility at "about 20%"; though considered high by some, this estimate is within the range of estimates sometimes provided to the general public. The remaining one-third of respondents estimated the prevalence of infertility as affecting 10% or less of Canadians.

When asked about their awareness of various new methods to assist infertile people to have children, 55% of those surveyed were able to name at least one assisted conception technique. When asked what they would do if they wanted to have a child but couldn't, 54% indicated that they would adopt. The other two options read to respondents were to remain childless or to "use methods like IVF." A minority of respondents (10%) felt they would remain childless under this circumstance, and approximately one-third felt they would use some form of assisted conception. Willingness to use assisted conception techniques was highest among the youngest respondents (i.e., those 18-34), though about one-half of these respondents still chose adoption as their preferred alternative.

Issues related to one of the most widely known new reproductive technologies — in vitro fertilization (IVF) — received considerable attention in this survey. For example, respondents were asked about whether prospective IVF users should be screened for parental suitability and whether various individuals should be eligible for IVF services. Respondents were also asked about the handling of excess fertilized eggs (which is sometimes a result of the IVF procedure) and about the most acceptable means of payment for IVF services in Canada.

Opinions of respondents were split concerning screening potential IVF users — 49% opposed screening, while 47% supported screening of potential users for parental suitability. However, when the use of IVF services by specific individuals was explored, the personal opinion of some was revised. For example, although almost half of those surveyed said they opposed screening, only 25% felt that homosexual female couples should be eligible for IVF services. Beliefs regarding eligibility for IVF services also revealed almost universal acceptance (94%) of this service being offered to married couples. Eligibility support dropped to 64% for common law couples, and about one-half (52%) of those surveyed felt that single women should be eligible for IVF services.

There was no consensus among respondents on the handling of extra fertilized eggs resulting from IVF. The method receiving the highest support was the freezing of fertilized eggs for future use by the same couple. This practice would be permitted by 63% of respondents, although a strong minority (30%) objected to this. Just over half (54%) would permit destroying the fertilized eggs, although this too was opposed by one-third of those surveyed. About one-half (54%) would also permit donating the fertilized eggs to other infertile people. The lowest support was registered for the use of the fertilized eggs for research or experimentation: 51% said this option should not be permitted.

Respondents surveyed (most of whom were likely to already have children) expressed mixed opinions on who should pay for IVF. While

the greatest support (62%) was for various shared payment options between the province and the individuals, one-quarter of those surveyed said the individuals should pay all costs, while 10% felt the health care system should pay all the costs. With respect to a shared payment arrangement, 35% of all respondents felt the individuals should pay what they could afford, with the province paying the remainder, and 27% of all respondents thought there should be an even split in costs between the user and the province.

Respondents in this survey were also asked their opinions on surrogacy — who should be allowed to use a surrogate mother, whether paid and unpaid surrogacy should be permitted in Canada, and perceived rights of the surrogate mother. A majority of respondents felt that surrogacy should be allowed in cases where the woman cannot conceive (64%) or when bearing a child would endanger the woman's health (60%). However, a strong majority (81%) objected to surrogacy when the woman who wanted to raise the child would rather not be pregnant or bear a child herself. Other results indicated that more than one-third (37%) supported surrogacy when a single man wishes to raise a child.

There was no obvious preference expressed for permitting paid or unpaid surrogacy in Canada, though support in each case dropped to about one-half of all respondents surveyed. Thirteen percent felt that the surrogate mother has the right to keep a baby she has gestated to term, regardless of the circumstances, whereas 51% of those surveyed felt, without qualification, that a surrogate mother does not have the right to keep the baby.

In another section of the survey, respondents were asked for their opinions on prenatal diagnosis (PND) and, in particular, their awareness and acceptance of PND methods, expected use of these methods. pregnancy termination based on PND results, and the public's view on the impact of widespread PND use.

The survey showed that 62% of respondents were able to name a PND method (usually ultrasound or amniocentesis), although one-third said they were not aware of any PND methods. Overall, when asked whether pregnancy termination should be allowed when a problem with the fetus is detected, few (15%) were opposed to pregnancy termination under any circumstances. Most (83%) supported the idea of pregnancy termination, though about one-half of these respondents did qualify their support, indicating that termination should be permitted only in certain circumstances. Various circumstances involving a problem with the fetus were presented and the issue of selective termination explored.

When respondents were told that the fetus has such a severe problem that it will probably die within six months of birth, 65% said they would allow pregnancy termination. When the fetus will result in a child confined to a wheelchair for the rest of his/her life, 42% would support pregnancy termination, while 45% would oppose it. If the case involves a fetus that, once born, would never be able to live without constant care, 54% would support pregnancy termination, while 33% would not.

Despite these different opinions on terminating a fetus in which a problem has been detected, there was a high degree of comfort with the application of PND for those at risk of a disorder detectable in this way. Sixty-nine percent of respondents said they would use PND methods if they were expecting a child and only 22% said they would not. Expected use of PND methods was highest among those 18-34 - 79% of respondents in this age group felt that they would utilize prenatal diagnostic techniques during a pregnancy.

Public opinion on fetal tissue use was also probed in this survey. Respondents were questioned on their awareness of fetal tissue use, the impact of its use, acceptable uses and expected personal use in a scenario involving a serious disease. Only 29% of respondents were aware enough of research using fetal tissue to treat a disease to be able to name a disease treated in this way. Of those surveyed, 57% said they were unaware of research using fetal tissue to treat disease. In response to questions about whether the origin of fetal tissue should affect its use. 47% of Canadians surveyed said that research should be used with all types of fetal tissue, while 37% said research should use only fetal tissue made available through natural causes (e.g., miscarriages and stillbirths). Ten percent said fetal tissue should not be used in any circumstance. A majority (84%) thought use of fetal tissue to treat a fatal disease should be allowed, and 77% would permit the use of fetal tissue in medical research. Only 18% supported commercial uses of fetal tissue.

Most respondents (72%) said that, if they were afflicted with a serious disease treatable with fetal tissue, they would undergo the treatment; 13% said they would not. One-third of those surveyed thought that treating disease with fetal tissue could create a demand for aborted fetuses, but 54% disagreed with this view. Fifty-six percent also felt the decision to terminate a pregnancy could be kept separate from the use of fetal tissue.

Policy issues are also discussed based on the findings of the survey. Who should decide policy in this area was the main focus. Doctors and medical researchers were considered to be the experts in this field, although a majority of respondents (56%) did not perceive physicians as any more qualified than others to make ethical or moral judgments. About half of respondents also expressed some reservations about some doctors' intentions: 54% agreed that some doctors are more interested in getting money and personal recognition than they are in their patients. Other results indicated that more than half (61%) felt that those with personal experiences with the use of reproductive technologies should be involved in deciding their use. Academics and women's groups were seen by approximately half of respondents as having a role. There was also a split as to whether the federal (40%) or the provincial (37%) governments should play a decision-making role. Lawyers, judges, and religious groups received the least support for their involvement in the decision-making process.

Finally, views on whether or not the reproductive technologies are essentially women's issues were considered. Only 4% thought the reproductive technologies were essentially women's issues. Forty-two percent felt that the issues surrounding reproductive technologies affect men and women equally, and a further 53% agreed with this statement but said women's views should be given special consideration.

Introduction

During May 1990 a survey was conducted by the Angus Reid Group on behalf of the Royal Commission on New Reproductive Technologies. This survey was national in scope and the first in a series of public opinion survey initiatives undertaken by the Commission. The survey itself was the second phase of a comprehensive research project designed to explore Canadians' awareness, understanding, and opinions on issues related to new reproductive technologies. The first phase of this project was qualitative in nature and involved the conduct of focus groups and in-depth interviews with experts, interest groups, and couples who have utilized assisted conception techniques.¹ The qualitative phase was designed to explore the different issues related to reproductive technologies and to elicit a wide range of viewpoints from participants. The results generated during this initial phase assisted in determining the focus of the public opinion survey, including the development of appropriate questions.

This report provides a summary of key results from the quantitative phase of the Angus Reid project. Detailed review of the qualitative research phase is beyond the scope of this report, though highlights of this phase have been presented, where appropriate, to provide some possible insights

into the attitudes of Canadians suggested by survey results.

Objectives of This Report

The primary objective of this report is to provide a descriptive summary of key results from the Angus Reid survey. The report also presents the results of statistically based exploratory analyses of trends observed for selected sociodemographic variables, including gender, age, region, education, and income.

Questions from the Angus Reid survey addressing the following issues

will be the main focus of this report:

- Infertility perceived prevalence, awareness of methods to assist the infertile, and expected behaviour if faced with infertility;
- In Vitro Fertilization (IVF) attitudes toward screening and eligibility, perceived success rates, acceptable methods of disposing of excess fertilized eggs, and payment options for IVF procedures;

- Surrogacy attitudes toward allowing surrogacy, payment for services, and the rights of the surrogate;
- Prenatal Diagnosis (PND) awareness of available methods, expected use of procedures, issues related to pregnancy termination, and perceived impact of widespread PND use;
- Use of Fetal Tissue awareness of research to treat disease, impact of the source and use of tissue, when is it permissible to use tissue, and expected behaviour if tissue needed to treat a serious disease; and
- Policy Issues who should pilot the decision process related to reproductive technologies, and do the issues related to reproductive technologies represent essentially women's issues?

As indicated previously, some of the results from the qualitative research phase (primarily focus group results) have also been integrated into this report, where appropriate. These results are based on a review of an initial research report on the qualitative results submitted to the Commission by the Angus Reid Group.

Methodological Issues

Questionnaire Development

As one of the Commission's first large-scale research initiatives, this project was designed to help provide a better understanding of the public's perception of the issues related to reproductive technologies. As indicated earlier, the qualitative component, among other things, not only assisted in the identification of issues to be pursued during the quantitative component of the project (i.e., the survey), but also assisted in the development of survey questions themselves (e.g., by helping to ensure that the questions reflected a level of understanding comparable to that of the general public).

The questionnaire was formally designed by the Angus Reid Group, in consultation with representatives of the Commission. Specifically, various drafts of the questionnaire were reviewed by Commission staff and Commissioners. Modifications to the questionnaire were recommended and changes made, where appropriate. The survey instrument was also pretested in both English and French in order to identify any ambiguities in the wording of questions. Modifications based on pretest results were also made to the questionnaire, where appropriate.

Focus Groups, In-Depth Interviews, and Survey Methodology

The qualitative phase of this project involved the conduct of 16 focus groups and 24 in-person interviews across Canada. Focus groups took

place in three different locations — Toronto, Montreal, and Vancouver. Participants for these sessions were randomly recruited from the general population and the sessions themselves were segmented by gender and age (18-30; 31-49; 50+). The in-person interviews conducted during this phase involved various reproductive technology experts, representatives from interest groups and women's groups, as well as couples who had found themselves unable to conceive and subsequently utilized the services of an IVF clinic. More complete details on the methodology for this qualitative phase are available in the Angus Reid Group's qualitative research report.2

For the quantitative phase of this project, the survey involved the conduct of telephone interviews with 1 503 randomly selected Canadian residents 18 years of age or older.3 A computer-based national sampling program was used to generate a random set of telephone numbers for individual households and a potential participant within each household was randomly selected. The sample for the survey was stratified by province and census division and statistical weighting procedures were applied to the data to ensure that the sample's age and gender composition accurately reflected that of the general population. Interviews were conducted between 15 May and 27 May 1990 using the Angus Reid Group's national network of central location telephone interviewing facilities. Interviewers were continuously monitored and all questionnaires were fully edited upon completion.

Analysis of Results

While the primary focus of this report was to provide descriptive summaries of the overall results for key questions asked in the survey, exploratory analyses of trends for selected sociodemographic variables were also conducted. Unfortunately, only detailed summary tables for each question were provided to the Commission (i.e., no raw data or system files were provided). Nevertheless, the summary tables provided by the Angus Reid Group did allow for the reconstruction of data sets adequate enough to enable some statistical analyses to proceed using SPSS/PC+. Dependence on the summary tables provided, however, did limit the types of exploratory analyses that could be pursued for this report.

For each question reviewed, the pattern of results for the following sociodemographic variables were considered:

- gender;
- age;
- education:
- income: and
- region.

A breakdown of the categories for these variables, the weighted subsample sizes for each category, and the interrelationship of sociodemographic variables (based on the magnitude of phi coefficients) are presented in Appendix 1.

In preparing this report, the emphasis has been on the exploratory nature of this investigation, in part because of the relatively large number of analyses conducted. However, emphasizing the exploratory nature of the investigation also allowed for the focus on potential trends and the use of statistical testing procedures as guidelines (rather than firm criteria, see below). Finally, interpretation of results should also proceed carefully because, as demonstrated in Appendix 1, some of the sociodemographic variables considered in this report demonstrated non-trivial relationships to each other. For example, age was found to be negatively related to both education ($\phi = 0.20$) and income ($\phi = 0.29$). In both cases, it was found that as age increases, education and income levels tend to decrease. Also, as might be expected, education and income were found to be positively related ($\phi = 0.34$); gender and household income were also found to be related ($\phi = 0.21$). These interrelationships were taken into consideration when interpreting statistically significant results.

With respect to interpreting the relationship of sociodemographic variables to specific survey questions, a set of guidelines was used. First, the chi-square test was used as an "omnibus" indicator of whether crosstabulated variables were independent. However, the magnitude of a phi coefficient as a measure of association was also considered when determining whether a statistically significant chi-square also suggested a meaningful association between two variables. As a general rule of thumb, phi coefficients may be interpreted as correlation coefficients with convention suggesting that a value of 0.10 represents a "small" and 0.30 a "medium" effect size (these values are essentially arbitrary and statisticians often encourage researchers to use their own judgment when interpreting the magnitude of phi coefficients, in particular, and measures of association, in general).⁴

In some circumstances, however, results associated with lower phi coefficient values were also considered, particularly if review of the data and the magnitude of standardized adjusted residuals associated with particular cells in cross-tabulated tables suggested an interesting trend. Standardized adjusted residuals are calculated by SPSS and their magnitude is based on the difference between observed and expected frequencies for a particular cell. These residuals may be interpreted in the same way as z-scores and help to assess why the assumption of independence for a particular analysis was rejected.⁵ As a rule of thumb, standardized adjusted residual values of ± 4.00 were considered meaningful. Generally, standardized adjusted residuals were used to help more accurately interpret and describe how sociodemographic variables were associated with attitude variables.

Review of sociodemographic results has focussed on summarizing the results through descriptions that provide a general understanding of the differences observed. For detailed breakdowns of sociodemographic

variables by question, see Appendix 2. The "no response" category presented in tables and discussed in the text includes the percentage of respondents who either did not answer a question or indicated "don't know." Further, all percentages reported in tables and the text are based on the total number of respondents overall (or the total number of respondents within a sociodemographic category). All statistical analyses, however, were based on the number of respondents within each sociodemographic category who provided a valid answer to a particular question (i.e., valid percentages — those categorized as "no response" were excluded). This does not introduce difficulties unless the "no response" rate across comparative subsamples differs substantially. Therefore, result summaries include mention of potentially meaningful variations in "no response" rates when this arises. Finally, results are summarized for a few questions in which open-ended or multiple responses were possible. Only descriptive summaries are reported under these circumstances.

Results and Discussion

Infertility and Related Issues

A number of questions were included in this survey to address issues directly related to infertility, including perceived prevalence, awareness of methods to assist the infertile, and expected behaviour of respondents if faced with an inability to conceive naturally. The results for these

questions are presented below.

In addition, however, the demographics section of the survey also asked respondents if an immediate family member or close friend had ever experienced an infertility problem. Originally, this question was meant as a means of segmenting the sample into those who had close contact and those who had not had close contact with someone experiencing a fertility problem. The results for this question, as well as its limitations, will be discussed. As originally intended, the impact of "contact" with someone close who has had a fertility problem on perceived prevalence of infertility, awareness of new assisted conception methods, and expected behaviour if infertile will also be reviewed.

"Contact" with Someone Who Has Experienced an Infertility Problem

As described above, respondents were asked: "Do you know anyone, among your immediate family or your close friends, who has had an infertility problem?" Forty-three percent of respondents answered "yes" to this question and 56% answered "no" (only 1% failed to respond).

Only marginal differences on specific sociodemographic variables were observed. For example, age produced only a very weak difference trend across categories (ϕ = 0.13), with 51% of those 35-54 indicating a family or close friend has had an infertility problem, compared to only 33% of those

55+. The youngest age group (i.e., those 18-34) fell between these extremes, with 43% indicating contact with someone close who had an infertility problem. Both education (ϕ = 0.15) and income (ϕ = 0.16) also produced marginal differences across education/income categories. For educational groups, those who had some post-secondary education stood out, with 50% reporting someone close to them had an infertility problem (compared to 35% of those in the other two education groups). Income demonstrated more of a linear trend, with 52% of those whose household income was more than \$40 000 indicating someone close to them had an infertility problem, compared to a low of 31% among those respondents in households earning less than \$20 000. No other sociodemographic variables produced suggestive differences.

On the surface, these results may appear surprising, particularly since formal estimates of the prevalence of infertility range from 5% to 15% (with some as high as 20%). There are, however, important limitations to the question asked, as well as possible explanations of why so many apparently perceived that someone close to them has had an infertility problem.

One possible problem associated with this question is that when it was asked of respondents (toward the end of the survey) the term "infertility problem" was not defined. Toward the beginning of the survey, respondents were asked to make prevalence estimates of infertility, and this term was defined for respondents at that time (as the inability to produce a child after trying for at least one year). Whether, much later in the survey, the respondents remembered this definition and adopted it when responding to the question is not known. However, it is possible that the failure to directly link a definition to this question may have led to different interpretations, since researchers have noted that individuals can differ greatly with respect to the length of time involved before failure to conceive is perceived as a "problem."

The issue of miscarriages and their role in determining whether a couple has an "infertility problem" was also not made clear to respondents. Definitions of infertility sometimes include the notion of failure to carry a fetus to term because of spontaneous miscarriages or stillbirths (sometimes also referred to as "impaired fecundity"). Whether respondents considered the experience of miscarriages or stillbirths as signalling an "infertility problem" among family members or close friends is unclear since inclusion or exclusion of such experiences as part of the definition of infertility was left ambiguous.

Clearly, failure to operationally define what a fertility problem should entail at the time the question was asked represents the most accessible reason why this type of question cannot be used in any way to gauge the "prevalence" of infertility. However, though the estimate itself provides little information, the question may be used carefully for its original intention — as a means of segmenting the sample into two groups (i.e., "contact" versus "no contact" with someone close who is perceived to have had a fertility problem). This does allow one to explore the impact "perceived contact" has

on perceptions and attitudes related to infertility. The impact of this difference in respondents' perceived exposure was considered for the questions reviewed in the remainder of this section.

Perceived Prevalence of Infertility

Operational definitions of infertility have varied, even among experts. For example, the medical community, for the most part, considers a couple infertile if after one year of unprotected intercourse they have failed to conceive. However, such organizations as the World Health Organization have advocated a two-year time frame of unprotected intercourse (and no conception) before defining a couple as infertile. And as mentioned previously, definitions of infertility sometimes include the experience of spontaneous miscarriages or stillbirths (i.e., failure to carry the fetus to term). As a result, prevalence estimates of infertility have also fluctuated, depending on the definition of infertility adopted and the population considered.⁹

Reported prevalence estimates, personal experiences, and other considerations (e.g., the recent increase in available fertility treatments and clinics)¹⁰ may all impact on the general public's perception of infertility, particularly the perceived magnitude of the problem. In turn, the perceived prevalence of infertility among the public can have an important impact on the strength of public support for or against the development and availability of various assisted conception methods to address the problem.

To provide a very general indication of the perceived prevalence of infertility in Canada, survey respondents were told: "Now, I would like to ask you a few questions about infertility, which is the inability of individuals to produce children after trying for at least one year."

They were then asked, "How common do you think infertility is in Canada?" A set of estimates was read and respondents were asked to select the one that provided what they considered the best estimate of the number of Canadians affected by infertility. The results for this question are presented in Table 1.

Estimates	% of Canadians
0% or less	31
About 20%	31
About 30%	18
10% or more	10
No response	11

As indicated in Table 1, 31% of respondents estimated the prevalence of infertility at 10% or less. Nearly 50% of respondents gave prevalence estimates between 20% and 30% (31% put the estimate at "about 20%" and 18% put the estimate at "about 30%"). Of the remaining respondents, 10% estimated that infertility affected about 40% or more of the population and 11% failed to provide an estimate.

There were differences in the pattern of estimates reported by men and women (ϕ = 0.20). On the one hand, men (39%) were more likely than women (22%) to estimate the prevalence of infertility as 10% or less. On the other hand, women (22%) were more likely than men (13%) to estimate the prevalence of infertility at "about 30%." There was no difference in the percentage of women and men that provided estimates of 40% or more.

The only other sociodemographic variable producing suggested differences across categories was education (ϕ = 0.19). The main finding for this comparison was that as education level increased, the percentage who estimated the prevalence of infertility at 40% or more decreased. Nineteen percent of those who had not finished high school gave infertility estimates of 40% or more, compared to 10% of those with a high school education and 8% of those with some post-secondary education. Results also indicated that the percentage who failed to provide an estimate also tended to decrease as education levels increased (from a high of 16% for those who hadn't finished high school, to a comparative low of 9% among those with some post-secondary education).

Finally, one finding of particular interest was that those who had reported "contact" with someone who has had a "fertility problem" (either family member or close friend) did not produce higher overall estimates of infertility when compared to those who reported "no contact." It would appear that exposure to close individuals who are perceived to have a fertility problem did not increase perceptions of the frequency of the problem in society.

Awareness of Methods to Help Infertile People

This survey included a number of questions designed to gauge respondents' awareness and knowledge of different reproductive technologies. One of the first awareness questions not only asked respondents, "Are you aware of any *new methods* which can be used to help infertile people have a child," but also required them to name a "new method."

Table 2 summarizes the overall results for this question. Without evaluating the actual methods mentioned, results indicated that just over half of respondents (55%) were able to name at least one assisted conception technique. The most common methods mentioned were artificial insemination; IVF; drug therapy; surrogacy; and various forms of microsurgery.

Table 2. Awareness of New Methods to	Help Infertile People
Reported level of awareness	%

Aware and method named	55
Not aware	36
No response	9

A number of sociodemographic variables produced suggested differences, including age ($\phi = 0.19$), education ($\phi = 0.22$), income ($\phi = 0.19$), and region ($\phi = 0.18$). With respect to age groups, the highest level of awareness was exhibited by those 35-54. Sixty-six percent of those 35-54 were able to name at least one assisted conception technique. Fifty-six percent of those 18-34 were able to name an assisted conception technique, but only 41% of those 55+ named a method. For both education and income, awareness increased as education/income level increased. For education, 40% of those who never finished high school were able to name an assisted conception technique, compared to 65% of those with at least some post-secondary education. For income, awareness ranged from a low of 41% for the lowest income group to a high of 66% for the highest income group.

As mentioned above, regional differences were also observed. For the most part, the difference here was limited to a much lower level of awareness in the Atlantic region (36%), compared to the other four regions, where awareness ranged from 50% to 65%. However, one other regional difference worth mentioning is that the Prairie provinces showed a much higher "no response" rate, compared to other regions (16% versus 4% to 8%) and only 50% of those surveyed in the Prairies were able to name an

assisted conception technique. Finally, comparison of those who reported "contact" with an infertile family member or close friend versus those who reported "no contact" produced some interesting differences ($\phi = 0.23$). Among those who reported they knew a family member or close friend with a fertility problem (i.e., "contact"), 68% were able to name an assisted conception technique. Among those who said they did not know a family member or close friend with a fertility problem (i.e., "no contact"), only 46% were able to name a method.

Expected Behaviour if Infertile

The expected behaviour of respondents, if they found themselves unable to have a child, was explored through a question that asked:

"Suppose for one moment that you or your partner wanted to have a child and couldn't. What would you do?"

The potential options that were read to respondents are listed in Table 3 (the order options were presented was rotated across respondents).

As indicated in Table 3, the option of choice for just over half of respondents (54%) was adoption. The next most popular option, selected by 31% of respondents, was to use assisted conception techniques, such as IVF. Only a small minority of respondents (10%) considered remaining childless as the best option presented.

Expected behaviour	%
ccept it and remain childless	10
opt a child	54
e methods like IVF	31
response	5

Both gender and region failed to produce meaningful differences. However, age groups ($\phi=0.22$) did reveal some interesting differences and education ($\phi=0.17$) and income ($\phi=0.16$) produced some suggested trends. For age groups, as might be expected, those 55+ suggested that they were more likely to adopt (66%) and less likely to use methods like IVF (16%), compared to other age groups. Those 18-34, in particular, were more likely to show the reverse pattern. Forty-one percent of those 18-34 said they would consider using methods like IVF if they wanted to have a child and couldn't; 48% of this group indicated that they would probably adopt a child. Those 35-54 fell between these two extremes, with 32% of this group stating they would use methods like IVF and 53% indicating that they would adopt a child.

Education and income demonstrated expected patterns, given the relationship of these variables to age. The percentage who stated they would use methods like IVF increased as education and income increased. Though adoption remained the method of choice across all groups, the percentage who selected adoption did decrease as education and income increased. Finally, no meaningful difference was found in the expected behaviour of those who reported "contact" with an infertile family member or close friend compared to those who reported "no contact" with the infertile.

Infertility: Discussion

Estimating the prevalence of infertility in modern society remains a difficult task not only because operational definitions of infertility can vary greatly but also because modern practices, like contraception use, can

interfere with the generation of valid estimates. Focus group discussions also revealed that participants differed in their opinion of exactly what constitutes an infertility problem (e.g., does the experience of spontaneous abortions reflect a problem?). Furthermore, when asked to generate prevalence estimates, many focus group participants admitted it was an issue they had never thought about before.

Under these circumstances, it is not surprising that survey respondents provided a wide range of prevalence estimates when asked: "How common do you think infertility is in Canada?" The definition of infertility provided to respondents also could have been clearer. Infertility as a failure to conceive after one year of unprotected intercourse is a common definition, but it is unclear whether "failure to produce children after one year" should be interpreted this way or interpreted literally (i.e., as the birth of a child). This latter case does not conform to any usual definitions of infertility. Nevertheless, the distribution of estimates was skewed toward the low end of the "percentage scale." About one-third of respondents estimated the prevalence of infertility at around 10% or less. An additional one-third estimated the prevalence of infertility at "about Though this estimate would be considered high by many researchers, it is within the range of estimates sometimes provided to the general public by some experts and the media (experts participating in the qualitative phase of this project estimated that 10% to 15% of Canadian couples experience fertility problems). Of course, the remaining one-third of respondents provided high prevalence estimates (30% or more) or failed to provide any estimate at all. There were also indications that women were more likely to generate moderately higher estimates of the prevalence of infertility compared to men.

Another issue addressed, and one that demonstrated some variability across respondents, concerned awareness of assisted conception methods to assist infertile couples. The question on awareness also included a "knowledge" component, since to be considered "aware" respondents were required to recall the name of at least one assisted conception technique. About half of the respondents surveyed indicated they were aware of the existence of assisted conception techniques and were able to name at least one method. The other half of respondents, however, either were unaware of methods to assist the infertile or failed to respond to the question. One interesting finding for this question was that those 35-54 demonstrated the highest level of awareness among the different age groups.

Another question addressing issues related to infertility asked respondents to reflect on what they would do if they or their partner wanted to have a child but couldn't. Respondents were prompted with three different possible options — adoption, use of an assisted conception method like IVF, or remaining childless. The most popular option, and the one selected by about half of the respondents, was to adopt. Nearly one-third of respondents, however, indicated that they would use an assisted

conception method like IVF, and the percentage who considered this option to be the best of the three was highest within the youngest age group.

Finally, all of the questions included in this section were explored taking into consideration a possible intervening variable: contact with someone (family member or close friend) who is perceived to have had an infertility problem. While "contact" with someone close who is perceived to have had an infertility problem did not appear to increase perceptions of the frequency of infertility in Canada, those who reported "contact" demonstrated a higher level of awareness of assisted conception techniques than those who reported having "no contact." "Contact" status, however, failed to influence respondents' expected behaviour if they found themselves faced with the inability to have a child.

Issues Related to IVF

In vitro fertilization is often the assisted conception technique cited as an example of the new reproductive technologies. Issues related to the use of IVF are numerous and varied. The survey addressed some of the issues related to the use of IVF, including whether access to this technology by specific individuals should be restricted; how the technology should be paid for; and the perceived success of IVF at assisting in producing a baby. The survey also addressed the difficult issue of dealing with excess embryos (referred to as fertilized eggs in the survey), a circumstance that is sometimes a product of the procedure itself. The results for each of these issues are summarized below.

Access to IVF

The issue of access to IVF procedures was explored through two main questions. One question asked respondents whether potential recipients of IVF should be screened in any way to determine their suitability as parents. The second question asked respondents to consider a number of different "types of people" and to indicate whether the individual(s) described should be eligible for IVF services.

The general screening question described above was introduced first and respondents were clearly split on this issue. Forty-nine percent of those surveyed said "no," people wishing to use IVF should not be screened in any way to determine their suitability as parents. However, 47% of respondents said "yes," screening should be used to determine parental suitability. The remaining 5% of respondents failed to provide an opinion. There were few meaningful differences across sociodemographic variables, though age did demonstrate a very weak trend (ϕ = 0.15). Age results were not dramatic, though those 55+ did stand out as more likely to be in favour of screening (58%), compared to those in the other two age categories (42% of those 18-34 and 44% of those 35-54 favoured screening).

All those who felt that potential IVF patients should be screened were also asked a follow-up question designed to determine the sorts of things these respondents felt potential users should be screened for. Respondents

were allowed to mention multiple screening criteria and the most popular were mental health; physical health; social background; and financial ability. Though this open-ended question was not formally analyzed, visual inspection of the results suggested no differences across the various sociodemographic variables.

The second question that explored the issue of accessibility considered who should be eligible for IVF. Respondents were read a list of different types of people and asked whether they should be eligible for this service. They were prompted with "assume all are infertile" and the order the scenarios were presented was rotated across respondents. Table 4 lists the different types of people who were considered as potential IVF users and the percentage of respondents who felt that each type should or should not be eligible for this service.

Clearly, eligibility for IVF services was almost universal for married couples. Eligibility, however, dropped from 94% for married couples to 67% for common law couples. Only about half of respondents (52%) felt that single women should be eligible for IVF, though an additional 9% volunteered that it would depend on the circumstances. As indicated in Table 4, 39% of respondents felt that a single man with a surrogate mother should be eligible for IVF. Support dropped even further for homosexual female couples and a homosexual male couple with a surrogate mother, with only 25% and 19% of respondents respectively indicating that such individuals should be eligible for IVF services.

Table 4. Accessibility: Who Should Be Eligible for IVF?

	Eligibility			
Potential user of service	Yes	No	Depends (not read)	No response
Married couples	94	3	2	0
Common law couples	67	26	6	2
Single women	52	38	9	2
A single man and a surrogate mother	39	51	7	3
Homosexual female couples	25	68	4	3
Homosexual male couple with a surrogate mother	19	74	4	3

The results concerning the eligibility of alternative lifestyle couples for IVF services are interesting, particularly in light of the results on screening reviewed earlier. As indicated previously, 49% of all respondents said they opposed screening potential IVF users for parental suitability. Never-

theless, 68% of all respondents felt homosexual female couples should not be eligible for IVF services, and 74% of all respondents felt that a homosexual male couple with a surrogate mother should not be eligible for IVF services.

With respect to sociodemographic variables, age produced the most consistent differences across all six types of individual(s) considered (phi coefficients ranged from a low of 0.18 for the married couple comparison across age groups to a high of 0.32 for the common law couple comparison across age groups). In all six cases age differences suggested a linear relationship, with the percentage endorsing eligibility decreasing with age (see Appendix 2). Education also demonstrated relatively consistent differences across educational groups. However, compared to age, the magnitudes of phi coefficients were lower (phi coefficients ranged from a non-meaningful value of 0.12 for the married couple comparison across educational groups, to a high of 0.23 for a single woman comparison across educational groups). The percentage who endorsed eligibility increased across educational groups (a finding consistent with the relationship of education to age).

The only other sociodemographic variable that produced suggested differences was region and this variable showed difference trends only for two of the types of individual(s) considered — common law couples ($\phi=0.17$) and single women ($\phi=0.16$). In both of these cases Quebec respondents stood out as more likely to endorse the eligibility of such individuals compared to other regions. For example, 78% of Quebec respondents felt that common law couples should be eligible for IVF, compared to 59% to 73% of those in other regions. For single women, 60% of Quebec respondents supported their use of IVF services, compared to 41% to 56% of those in other regions. None of the other types of individual(s) considered produced regional differences, suggesting that the regions did not differ with respect to the eligibility of married couples, single men with surrogates, or alternative lifestyle couples for the use of IVF services.

Perceived Success of IVF

The perceived success of IVF procedures remains a topic of some debate, even among experts. The Commission's work in this area suggested that the quality of record keeping across IVF clinics was insufficient to allow reliable Canadian estimates of IVF success rates to be calculated. Nevertheless, evaluating the public's perception of IVF success rates can help to better understand their attitudes toward this procedure.

Respondents were asked to estimate, "Out of every ten couples who undergo IVF, how many do you think have a baby?" The percentage estimates that were read to respondents are listed in Table 5 along with the percentage of respondents selecting each estimate. As can be seen from Table 5, estimates of success rate were skewed toward the low end, though

nearly one-third of respondents did expect the success rate to be 40% or higher. Eleven percent of respondents also failed to provide an estimate.

No strong differences across sociodemographic variables were observed for this question, though weak trends did emerge for gender (ϕ = 0.15) and age (ϕ = 0.16). With respect to gender, a higher than expected percentage of women (36%) than men (29%) estimated the success rate of IVF at less than 20%, and a lower than expected percentage of women (9%) than men (18%) estimated the success rate at 60% or higher.

Estimates	%
Less than 20%	33
20-40%	26
40-60%	18
60-80%	10
80-100%	4
No response	11

For age, a higher percentage of those in the middle age group (35-54), compared to the other two age groups, estimated the success of IVF at less than 20%. Thirty-nine percent of those 35-54 felt that the success of IVF was less than 20%, compared to 30% of respondents in the other two age groups. Also, those 18-34 tended to be more optimistic in their estimates of the success of IVF, with 35% of this group estimating a success rate between 40% and 80% (24% of those 35-54 and 19% of those 55+ felt that the success rate was this high). It should be kept in mind that these are only suggestive differences and were not particularly strong. However, there was also a tendency for the percentage who failed to provide an estimate to increase across age groups. Six percent of those 18-34, 10% of those 35-54, and 20% of those 55+ failed to estimate the success rate of IVF.

Distribution of In Vitro Fertilized Eggs

One of the issues facing the use of IVF as an assisted conception technique for human beings is the treatment of extra eggs that have been fertilized *in vitro*. Currently, some methods used in IVF are designed to retrieve a number of eggs, fertilize them, and then transplant those that appear to be most viable. In some cases, all or most of the fertilized eggs may appear viable and the issue arises as to what should be done with those not immediately transferred into the woman.

Respondents were presented with a number of different options for handling excess fertilized eggs and were asked to indicate whether they felt this should be permitted or not. The four options explored are listed in Table 6, along with the percentage of respondents who felt each should be permitted or should not be permitted (the order these were presented was rotated across respondents).

Table 6. Excess of *In Vitro* Fertilized Eggs: Methods of Distribution

	Permit	Do not permit	Depends (not read)	No response
Freeze them for future use by the same people	63	30	3	3
Destroy the excess fertilized eggs	54	33	6	7
Give them to other infertile people for their use	47	42	8	3
Provide them for research and experimentation	40	51	6	3

As can be seen from Table 6, most of those surveyed expressed an opinion. Freezing the fertilized eggs for future use by the same couple received support from the highest percentage of respondents (63%), though 30% felt this should not be permitted. About half of respondents (54%) were willing to permit the excess fertilized eggs to be destroyed, though, once again, one-third of respondents were opposed. Provision of excess fertilized eggs to other infertile people would also be permitted by nearly half of respondents (47%), though nearly as many opposed this practice. Finally, distribution of excess fertilized eggs for the purpose of research/experimentation received the lowest level of support, with 40% of respondents indicating that this should be permitted.

Gender, education, and income all failed to produce meaningful differences for any of the "disposal" methods reviewed with respondents. Both age and region, however, did produce a few difference trends worth mentioning. For age, the option of freezing fertilized eggs for future use by a couple ($\phi=0.17$) and the option of donating fertilized eggs to other infertile couples ($\phi=0.16$) both produced difference trends. Generally, support for these methods of dealing with fertilized eggs decreased across age categories. For the option of freezing fertilized eggs, 71% of those 18-34 and 65% of those 35-54 felt this option should be permitted. Only about half (51%) of those 55+ felt this option should be permitted. For the option

of donating fertilized eggs to another couple, 55% of those 18-34 and 46% of those 35-54 would permit this option, compared to 36% of those 55+. At noted above, however, age appeared not to influence the level of support observed for destroying fertilized eggs or providing them for research and experimentation purposes.

Region also produced difference trends for the option of donating fertilized eggs to other infertile people ($\phi=0.14$) and for the option of providing them for research and experimentation ($\phi=0.14$). As suggested by the magnitude of the phi coefficients, differences were marginal and limited to Quebec respondents "standing out" from other regions in their support for these options. Fifty-seven percent of Quebec respondents supported the option of providing excess fertilized eggs to others, compared to 40% to 48% of respondents in other regions. As well, 50% of Quebec respondents said they would permit the provision of excess fertilized eggs for research and experimentation purposes, compared to 32% to 39% of respondents in other regions. These were the only suggested regional differences observed for the four different options considered.

Payment for IVF

Another issue concerns who should pay for the use of IVF services. This topic generated much discussion during focus group sessions, with many changing their positions as different facets of the issue were considered. This should be kept in mind when the results for this question are considered. Also, it is important to bear in mind that most respondents already had children. This may have altered their views on who should pay for a procedure they knew they themselves were unlikely to ever need.

The option alternatives for the payment of IVF procedures that were read to respondents are presented in Table 7. This table also summarizes the percentage of the overall sample that selected each of these possible options. As can be seen, various "province and individual" shared payment options received the most support — 35% felt that the individuals should pay what they could afford (with the province covering the rest), and 27% felt that the health care system and the individuals should split the costs equally. However, one-quarter of all respondents did indicate that individuals using IVF services should cover the entire cost, while one in 10 felt the health care system should cover the entire cost. The "no response" rate for this question was quite low (2%), indicating that virtually all respondents expressed an opinion.

Few differences on sociodemographic variables were observed, though age ($\phi=0.20$) did produce differences and region ($\phi=0.16$) produced a difference trend worth mentioning. Differences across age groups were limited to variability for two alternative payment options. On the one hand, the percentage in each age group who indicated that the individual should pay the entire cost of IVF services increased with age, from a low of 16% among those 18-34 to a high of 36% among those 55+. On the other hand, the percentage who felt that the province and individual should equally

share the cost of IVF decreased with age, from a high of 33% among those 18-34 to a low of 20% among those 55+.

Regional variability was limited to a response pattern difference in the Atlantic provinces, compared to other regions. In the Atlantic provinces, a higher than expected percentage of respondents felt that IVF services should be paid for entirely by the individual (34% supported this option in the Atlantic provinces, compared to 22% to 28% of those in other regions). Conversely, fewer than expected in the Atlantic provinces (14%) felt that the individual and the province should split the cost of IVF equally, compared to those in other regions, where support for this option ranged from 23% to 31%. Except for these differences, the pattern of responses across the different regions was virtually the same. As noted, the fact that most respondents knew they already had children may have altered their views regarding how these services should be paid for.

IVF: Discussion

The IVF issues explored with respondents produced some interesting results that hint at the complexity of a number of these issues. For example, respondents were split on the issue of screening potential IVF users to determine their suitability as parents, with nearly half (49%) indicating that they opposed screening. However, when asked whether homosexual couples should be eligible for IVF services, only 25% felt a lesbian couple should be eligible and 19% would allow a male couple with a surrogate mother access to IVF services. This pattern of results suggests that at least half of those who initially indicated that they opposed screening would, nevertheless, deny access outright to such couples.

Another area where the complexity of issues related to IVF appeared to surface concerns the treatment of excess fertilized eggs, which may be a product of IVF procedures. Since nearly all of the respondents surveyed (94%) felt that a married couple should be eligible for IVF services, it would appear that this procedure is generally accepted by the public (though personal acceptance may be another matter). When respondents were

asked to consider what should be done with excess fertilized eggs, freezing excess fertilized eggs for future use by the couple received the most support (63%). Slightly over half of the respondents said they would permit destroying excess fertilized eggs and almost half would permit providing them to other infertile couples, though the other half of respondents in both of these cases were either against these methods outright or failed to provide a clear opinion. Forty percent supported the option of providing excess fertilized eggs for research and experimentation purposes, but 51% indicated that they would not permit it.

The summary of focus group findings does shed some light on the issue of dealing with excess fertilized eggs. Many focus group participants felt that there was an important "qualitative leap" from the separate material of sperm and eggs to the product of their joining — fertilized eggs — which for many represented life or at least the potential for life. It would appear that some focus group respondents were quite uncomfortable with the issue of having to deal with excess fertilized eggs, a feeling that may have been shared by a significant segment of survey participants (as

indicated by survey results).

During focus group discussions on what to do with excess fertilized eggs a number of observations were recorded that are worth mentioning here. For example, like survey results, freezing excess fertilized eggs was the most popular option. Destroying the fertilized eggs received less support, though some felt that destroying them was a better alternative than donating them to other infertile couples. In fact, the option of donating fertilized eggs to others generated some discussion. On the one hand, some of those uncomfortable with this option felt that donation was almost like adoption with strangers raising your children. Others, however, empathized with the infertile couple. Finally, as in the survey, focus group participants were least comfortable with the donation of fertilized eggs for research/experimentation purposes. Those opposed expressed concerns about how the fertilized eggs would be treated (e.g., how long would they be allowed to "grow"; would genetic manipulation be introduced; would the fetus suffer). Still others, however, expressed faith that scientific professionals would use the knowledge gained in ways beneficial to humankind.

These focus group observations have been presented merely to provide examples of some of the possible considerations survey respondents faced when responding to the questions on the handling of fertilized eggs. One issue that has not been discussed yet, however, is the terminology used with focus group and survey respondents — namely use of the term "fertilized eggs" instead of "embryos" or "zygotes." Practitioners in this area typically refer to the culturing of embryos or zygotes *in vitro* for transplantation into a woman. Though the embryonic stage in fact commences about two weeks after fertilization, the term "embryo" is used in popular literature explaining IVF procedures to the lay person and in papers reporting IVF research results. It is possible that use of the term

"embryos" in the survey instead of "fertilized eggs" would have resulted in different levels of support for the different methods of handling explored and this should be kept in mind.

A final issue addressed in the survey that also generated considerable discussion during focus groups was the possible methods of payment for IVF services. It is important to bear in mind again that most respondents already had children. This may have altered their views on who should pay for a procedure they knew they themselves were unlikely to ever need. This is different from the situation regarding other medical treatments, which they did not know if they would need or not. Clearly, some form of shared payment plan between users and the provincial health care system was the most popular option among survey respondents. Nearly two-thirds either supported splitting costs between the individual and province equally or felt that the amount individuals paid should be based on their income. However, one-quarter of those surveyed felt that IVF services should be paid for entirely by the individuals involved. The least popular payment option was for the province to cover the entire cost of IVF services.

As mentioned previously, focus group participants found the issue of payment for IVF to be a very complicated one, with opinions often changing (both ways) as discussions progressed. Arguments on both sides of this issue were raised. For example, some pointed to the importance of protecting our health care system's principle of universality, though some of these individuals did acknowledge that resources are currently quite limited. Concerns with possible abuses emerging from a private system were also raised (e.g., unethical practices). Others who supported private funding, however, described IVF as a "frill" service, and some even indicated that a two-tier medical system is not necessarily a bad thing. Some also argued that the system faces much more pressing health care problems than infertility and that infertile couples have alternative options, such as adoption (some also suggested that people can adjust to being childless). Finally, some felt that IVF funding is misdirected in light of limited resources and that public funds would be better spent researching the causes of infertility and educating the public on prevention measures.

Surrogacy

A number of questions were included in this survey that addressed various issues related to surrogacy, including who should be allowed to use a surrogate; whether a surrogate should be paid for her services; and the rights of a surrogate to keep a baby she has gestated to term. The results for each of these issues are summarized below.

Before reviewing the results in this section, however, it should be noted that the term "surrogacy" was not explicitly defined for respondents. Rather, it was assumed that respondents understood what surrogacy and a surrogate arrangement entailed. By not defining surrogacy, the explicit details of a surrogacy arrangement were not made salient to respondents,

an approach that differed from other surveys conducted for the Commission. These details should be kept in mind when reviewing results and this issue will be expanded on in the discussion of surrogacy presented at the end of this section.

When Should Surrogacy Be Allowed?

The issue of when surrogacy should be allowed was explored by describing four different circumstances that might lead to the use of a surrogate. The circumstances considered and whether respondents felt that use of a surrogate should or should not be allowed are summarized in Table 8. Presentation of the situations described was rotated across respondents.

Table 8. Circumstances in Which Surrogacy Should Be Allowed

	Should be allowed	Should not be allowed	Depends (not read)	No response
When the woman who wishes to raise a child cannot conceive	64	27	7	2
When it would endanger the health of the woman who wishes to raise the child if she were to become pregnant	60	34	3	2
When the woman who wishes to raise the child would rather not be pregnant or give birth	15	81	2	2
When a man wishes to raise a child	37	55	6	2

As indicated in Table 8, a majority of respondents (approximately 60%) felt that surrogacy should be allowed in the two cases where the prospective social mother is unable to carry a baby to term herself (either because she cannot conceive or because her health would be endangered). However, there was little support for allowing the use of a surrogate when the prospective social mother would simply rather not be pregnant. In this case only 15% of respondents supported allowing the use of a surrogate.

Finally, allowing use of a surrogate by a man who wishes to raise a child also received only minority support, though nearly four in 10 of those surveyed felt surrogacy should be allowed under this circumstance. This level of support is similar to the percentage of respondents who would allow the use of IVF services by a single man with a surrogate (39% of respondents would allow the use of IVF under this circumstance).

There were a number of meaningful differences across sociodemographic variables and a number of difference trends observed that are worth mentioning. As might be expected, the variable producing the most consistent differences was age. All the circumstances reviewed (except the situation where the woman simply wishes not to be pregnant) produced age-related phi coefficient values of 0.20 or higher. In all cases, support for the use of surrogacy decreased with age. For example, for a woman who cannot conceive, support for the use of surrogacy ranged from a high of 74% among those 18-34, to a comparative low of 50% among those 55+. For a man who wishes to raise a child, more than half of those 18-34 (53%) would support surrogacy under this circumstance, while only 19% of those 55+ offered their support (see Appendix 2).

Gender also produced some marginal differences, though the consideration of gender alone tended to mask the most important difference, which was age dependent. When considering gender alone, a weak difference trend was observed for the circumstance where a woman is unable to conceive ($\phi = 0.12$) and a very weak trend was observed for the circumstance in which a woman's life would be endangered if she became pregnant ($\phi = 0.10$). In both of these cases, fewer women supported the use of surrogacy than men. Sixty-nine percent of men and 59% of women supported surrogacy in the former case, and 65% of men compared to 55% of women supported surrogacy in the latter case. It is interesting to note, however, that the most dramatic gender differences tended to be between men and women in the 35-54 age group (while men and women 18-34 and 55+ tended not to differ in their level of support for the use of surrogacy under these circumstances). In the case where a woman is unable to conceive, 70% of men 35-54 would allow surrogacy, while only 56% of women in this age group would allow it ($\phi = 0.16$). When a woman's health would be endangered by pregnancy, 69% of men but only 54% of women 35-54 would allow surrogacy ($\phi = 0.15$).

Finally, one regional trend was observed for the case where a woman's life would be endangered by pregnancy (ϕ = 0.15). For this circumstance, a higher than expected percentage of Quebec respondents felt that surrogacy should be allowed. Sixty-nine percent of those in Quebec would allow surrogacy, compared to 54% to 60% of those in other regions. This finding, however, was just a suggestive trend and this trend was not observed for any of the other circumstances considered. Overall, results suggested that attitudes toward allowing surrogacy were similar across regions.

Paid and Unpaid Surrogacy

The issue of whether paid surrogacy and/or unpaid surrogacy should be permitted in Canada was also explored with respondents. Table 9 summarizes respondents' attitudes toward paid and unpaid surrogacy. As can be seen, approximately half of all respondents felt that surrogacy should be permitted in both circumstances, though a higher percentage would permit paid surrogacy.

Some interesting sociodemographic differences were observed for these two questions. For example, an age difference trend was suggested for paid surrogacy (ϕ = 0.16), with support decreasing across age groups from a high of 63% for those 18-34, to a low of 43% among those 55+. However, age groups failed to demonstrate even this marginal difference in the case of unpaid surrogacy (ϕ = 0.11). For gender, a difference trend between men and women was observed for unpaid surrogacy (ϕ = 0.13), but not for paid surrogacy (ϕ = 0.08). Fifty-two percent of men would permit unpaid surrogacy, while only 40% of women would permit unpaid surrogacy. As with the issue of who should be allowed to use a surrogate, the largest difference between men and women was seen for those within the 35-54 age group (ϕ = 0.17). In this age group, 53% of men but only 37% of women would permit unpaid surrogacy.

Finally, regional differences were observed for the issue of paid surrogacy (ϕ = 0.20) but not for the issue of unpaid surrogacy (ϕ = 0.10). Nearly three-quarters of Quebec respondents (70%) said they would permit paid surrogacy, while only about half of the respondents in other regions would permit paid surrogacy (45% to 49%). However, when it came to unpaid surrogacy, this pattern was not even suggested — 39% of Quebec respondents would permit unpaid surrogacy compared to 40% to 52% of respondents in other regions. It should also be noted that those in the Atlantic region exhibited a higher "no response" rate than those in other regions, particularly when addressing the issue of unpaid surrogacy (see Appendix 2).

Table 9. Permitting Paid and Unpaid Surrogacy

Permitting surrogacy			
Yes	No	No response	
54	40	6	
46	46	8	
	Yes 54	Yes No 54 40	

Rights of the Surrogate

Surrogate rights were addressed with respondents by asking them: "When the baby is born, do you feel that the surrogate mother should have the right to keep the baby?"

As indicated in Table 10, only 13% of all respondents felt that a surrogate mother had the right to keep the baby, regardless of the circumstances. An additional 30% felt she would have the right to keep the baby under certain circumstances. A follow-up question with these respondents revealed that the most frequently mentioned extenuating circumstances included adopting parents unsuitable; contract broken/no contract; or if the surrogate mother bonds with the child. As indicated in Table 10, however, half of respondents (51%) did not think that the surrogate mother had the right to keep the baby. There were no differences observed for any of the sociodemographic variables.

Right to keep the baby	%
Yes, regardless of the circumstances	13
Yes, in some circumstances	30
No	51
No response	5

Surrogacy: Discussion

Support for surrogate arrangements was an issue addressed in all of the Commission's national opinion surveys. Surrogacy received support from a strong minority of respondents in all surveys, but it was in this survey where surrogacy received the highest support. This survey was also the only one that did not provide descriptive details about the process a surrogate undergoes, including handing over the baby. It is unclear what impact this may have had on how respondents interpreted questions on surrogacy, but its potential impact should not be overlooked.¹⁴

Results from this survey indicated that a strong majority (nearly two-thirds) felt that surrogacy should be allowed in those situations where the prospective social mother faces fertility problems (e.g., is unable to conceive; health endangered by pregnancy). This criterion for use of a surrogate was underscored by the clear lack of support for the use of a surrogate when the prospective social mother simply would rather not be pregnant. Only 15% supported use of a surrogate under this circumstance. However, a strong minority of respondents (37%) felt that a man who

wishes to raise a child should also be allowed to use a surrogate mother to achieve this end.

When it came to the issue of permitting paid surrogacy and/or permitting unpaid surrogacy, respondents (overall) displayed no obvious preference. This was a bit surprising, given focus group results that suggested an obvious preference for paid surrogacy among participants, particularly among women participants. However, survey differences with respect to this issue did emerge when the responses of men and women were considered in the survey. Though women and men did not differ in the percentage who would permit paid surrogacy, women were less likely than men to endorse unpaid surrogacy. It would appear that payment was also an important component of surrogate arrangements for a large majority of Quebec respondents. Nearly three-quarters of Quebec respondents said they would permit paid surrogacy, while only about half of the respondents in other regions would permit paid surrogacy.

Women's groups and some focus group participants expressed concerns about allowing paid surrogacy, since it might encourage the exploitation of particularly vulnerable women, such as the poor. However, for many focus group participants, it would appear that failure to pay a

surrogate was itself viewed as exploitive.

Finally, the right of the surrogate to retain a baby she has gestated was explored with survey respondents. Half of all respondents said "no," the surrogate mother did not have the right to keep the baby. Only 13% of respondents indicated they felt that she had the right to keep the baby, regardless of the circumstances. These results are a bit surprising, given that the emotional well-being of the surrogate emerged as a big issue during focus group sessions. However, some focus group participants also stressed the rights and emotional investment of the social parents in this circumstance. Still others viewed surrogacy as a legal matter and thought that the presence of a mutually agreed upon contract is binding and should preclude such a circumstance.

Prenatal Diagnosis

Issues related to technologies allowing PND were the focus of a number of questions in this survey. Not only were respondents' awareness and acceptance of such technologies assessed, but also issues related to the impact of using PND were explored. In particular, the issue of pregnancy termination — when it should be allowed and if it should be allowed at all — was the focus of a number of questions. Finally, respondents' perceptions of the impact of widespread PND use were also considered.

Awareness of PND

It was expected that awareness of PND techniques would be relatively high, given that such techniques are applied during pregnancy (an event that happens much more often than the need for assisted conception techniques). As indicated in Table 11, 62% of respondents were able to name a method they felt was used to check the health of the fetus. An additional 8% said they were aware of such techniques, but were unable to recall the name of a method. Surprisingly, nearly one-third of respondents said they were not aware of any method used to check the health of the fetus. Of those respondents who were able to name a diagnostic method, by far the most common methods mentioned were amniocentesis and ultrasound.

A number of sociodemographic variables produced differences or difference trends of interest. As might be expected, differences were observed across age groups ($\phi = 0.26$). Awareness of PND techniques (including recall of a method) was comparatively high among those 18-34 (68%) and those 35-54 (71%), compared to those over 55 (42%). Education produced even stronger differences across groups ($\phi = 0.29$). Seventy-four percent of those with some post-secondary education were aware of at least one PND method. Fifty-five percent of those who graduated from high school and 43% of those who failed to finish high school were aware of at least one PND method. Income also produced meaningful differences across groups ($\phi = 0.21$), with a pattern similar to that seen for education (awareness ranged from a comparative low of 48% for those with household incomes of less than \$20 000 to a high of 72% among those with incomes of more than \$40 000).

Finally, there was also a marginal difference trend across regions (ϕ = 0.15). Here the only suggested difference was that a higher than expected percentage of respondents in British Columbia demonstrated awareness of PND methods (74%), compared to the percentage of respondents who were aware in other regions (ranging from 55% to 66%).

Reported awareness	%
Yes, and method named	62
Yes, but unable to name method	8
No, not aware	29
No response	1

PND and Pregnancy Termination

Once respondents' awareness of PND methods was assessed, a definition of PND was provided. This description emphasized that such methods allow doctors to "... tell a lot about the fetus, including its sex, whether or not it will have Down's Syndrome, Spina Bifida or a number of other diseases and disabilities" (see Appendix 2). Respondents were then

asked for their opinion on what should be done when a problem with the fetus is revealed — specifically, should termination of the pregnancy be permitted or not.

The exact response options provided to respondents are reported in Table 12. As indicated, 41% felt that a pregnancy termination should be permitted whenever the parents decide and an additional 42% felt termination should be allowed under certain circumstances. Only 15% of respondents felt that under no circumstances should pregnancy termination be allowed.

Table 12.	Attitudes	Toward	Pregnancy	Termination	When
Problem v	vith Fetus	Detecte	d		

%
15
42
41
41

Only suggested regional differences were observed for this question and these differences indicated a weak trend only (ϕ = 0.13). Nevertheless, results did suggest that a higher than expected percentage of Quebec respondents (51%), compared to those in other regions (ranging from 33% to 43%), felt that pregnancy termination should be permitted whenever the parents decide.

Respondents were also asked a set of supplementary questions to try to better determine under which circumstances respondents felt pregnancy termination should be allowed. The circumstances explored, as well as the distribution of responses, are presented in Table 13. As can be seen, virtually all of those surveyed gave a response. When it was known that the infant would die within the first six months of life, 27% would not allow termination. When the fetus, if born, would never be able to live without constant care, 33% would not allow termination.

Nearly all respondents were in agreement concerning the termination of a pregnancy because the fetus was not the sex the parents hoped for. Under this circumstance nearly all respondents (94%) were against pregnancy termination.

Table 13. Circumstances in Which Pregnancy Termination Should Be Allowed

· 	Allow	Do not allow	Depends (not read)	No response
When the fetus is known to have such a severe problem that the child will probably die within the first six months of life	65	27	6	2
When the fetus is known to be handicapped to the point that the child will have to spend its life in a wheelchair	42	45	10	3
When the fetus is known to be handicapped to the degree that, once born, the person will never be able to live without constant care	54	33	10	3
When the sex of the fetus is not what the parents hoped for	4	94	1	1

Once again, region was the only sociodemographic variable to produce differences. For two of the situations reviewed — the fetus is known to be handicapped and will spend its life in a wheelchair (ϕ = 0.18) and the fetus is known to be handicapped and will require constant care (ϕ = 0.22) — a higher than expected percentage of Quebec respondents in both cases supported termination, compared to respondents in other regions. For example, 55% of Quebec respondents would permit termination of a fetus known to be handicapped (i.e., life in a wheelchair), while 29% to 47% of those in other regions would permit termination under this circumstance. For the situation where the resulting child would be handicapped and require constant care for the rest of its life, 70% of those in Quebec would permit pregnancy termination, compared to 37% to 61% of those in other regions.

Expected Use of PND

The expected behaviour of respondents with respect to the use of PND techniques was also assessed in the survey. Respondents were asked to consider whether they would use methods such as amniocentesis or

ultrasound if they or their partner were expecting a child. Sixty-nine percent of respondents said "yes," they would use such methods. An additional 7% said that it depended on the circumstances (the circumstances mentioned by these respondents in a follow-up question included such things as age or health of mother; probability of problem; or on doctor's advice). A minority of respondents (22%) said they would not use such procedures.

Only age produced any meaningful difference for this question (ϕ = 0.20). Seventy-nine percent of those 18-34 and 67% of those 35-54 said they would use PND techniques. Only about half of those 55+ (56%) indicated that they would use such PND techniques to test the health of a fetus.

Perceived Impact of Widespread PND Use

A final question asked of respondents on the topic of PND concerned the perceived impact that widespread use of such methods would have on the disabled. Using a 1 (totally disagree) to 7 (totally agree) scale, respondents were asked whether they agreed or disagreed with the following statement:

"The widespread use of these methods will make society more intolerant of disabled people because there will be fewer of them."

Fifty-two percent disagreed with this statement (with 30% totally disagreeing), while 34% of respondents agreed. The remaining respondents were either neutral (11%) or provided no response (3%).

Marginal difference trends were observed for only two socio-demographic variables: education ($\phi=0.15$) and income ($\phi=0.14$). A higher than expected percentage of those with some post-secondary education (59%) disagreed with this statement, compared to high school graduates (46%) and those who failed to finish high school (41%). In other words, the perceived negative impact of widespread PND on the disabled decreased as education level increased. Differences across income groups displayed the same pattern (see Appendix 2).

PND: Discussion

Overall, 62% of respondents were aware of and able to name a PND method, compared to 55% who were aware of and able to name an assisted conception technique (see Infertility and Related Issues section). This was contrary to expectations based on focus group results, where participants appeared more aware of and able to "relate" to PND issues more easily than to issues associated with assisted conception techniques. However, when age and education were taken into consideration, awareness of PND clearly exceeded that of assisted conception techniques.

Most of the remaining questions related to PND focussed on one of the possible choices after utilizing such techniques — namely pregnancy termination when a "problem" with the fetus is revealed. Only 15% of all respondents indicated that under no circumstances should pregnancy

termination be permitted. Conversely, over 80% felt that termination of a pregnancy when a problem is revealed should be permitted, though half of these respondents felt it should be permitted in certain circumstances only.

Supplementary questions on when selective pregnancy termination should be allowed showed 27% of all respondents said they would not allow pregnancy termination when a severe problem was detected and it was known that the child would probably die within the first six months of life. Thirty-three percent of respondents would not allow it for the case where it was known that the child would be disabled and unable to live without constant care. Forty-five percent would not allow pregnancy termination when the child would be disabled and spend the rest of its life in a wheelchair. In one case, however, respondents were very clearly of one voice — nearly all (94%) were against allowing the termination of a fetus solely because it was not the sex the parents hoped for.

In the focus groups some expressed concerns about the dangers and abuses that might arise through the use of PND. However, in the end most felt that this technology would result in an improvement of the human condition. Survey results indicated a high level of comfort with PND among those most likely to use such techniques in the future. Seventy-nine percent of respondents 18-34 indicated that they would utilize PND techniques during a pregnancy. A caveat related to this result is that no distinction was made between ultrasound and amniocentesis for this question. These two procedures are quite different, particularly in terms of their invasiveness and known risk. Future surveys should investigate attitudes toward the procedures separately.

Use of Fetal Tissue

Issues related to the use of fetal tissue in research to treat disease were another area that received considerable attention in this survey. Respondents' awareness of such research was assessed, as were the conditions and circumstances that might influence permitting the use of fetal tissue. Other issues addressed included respondents' expected use of a treatment utilizing fetal tissue (if needed) and the perceived impact of fetal tissue use on the incidence of pregnancy terminations.

Research with Fetal Tissue to Treat Disease: Awareness

To determine the level of awareness of fetal tissue research to treat disease, respondents were asked not only whether they were aware of any research, but also what disease(s) researchers are suggesting could be treated this way. Table 14 summarizes the results for these questions. As can be seen, awareness plus recall of at least one disease was comparatively low, with only 29% of respondents indicating awareness and the ability to name a disease (whether the disease mentioned was actually being treated with fetal tissue was not assessed, though the two diseases mentioned most often in a follow-up question were Parkinson's and Alzheimer's). An additional 13% of respondents said they were aware of

such research, but were unable to name a disease being treated with fetal tissue. Most of the remaining respondents (57%) said they were unaware of research using fetal tissue to treat disease.

A number of differences on sociodemographic variables were observed for this awareness question. For example, age demonstrated a difference trend ($\phi = 0.17$), with a higher than expected percentage of those 18-34 (66%) indicating that they were unaware of research using fetal tissue to treat disease (53% of those 35-54 and 49% of those 55+ reported they were unaware of such research). Education also produced a difference trend $(\phi = 0.18)$. The difference here was limited to those with some postsecondary education (36%) demonstrating a higher level of awareness of fetal tissue use to treat disease than the other two educational groups (19% and 23%). Though the results for education make intuitive sense, they are particularly interesting since the pattern observed is different from what might be expected, given the pattern of results for age. Finally, there was a regional trend observed ($\phi = 0.15$), with the only suggestive difference being that a higher than expected percentage of Quebec respondents (68%) indicated that they were unaware of fetal tissue research to treat disease, compared to those in other regions (which ranged from 50% to 57%).

Awareness of fetal tissue use	%
Yes, and disease(s) named	29
Yes, but unable to name a disease	13
No, not aware	57
No response	1

Origin and Use of Fetal Tissue

Once respondents' awareness of fetal tissue research was assessed, they were informed that research is currently being done on the possible uses of fetal tissue and that such research may prove helpful in the treatment of some diseases, such as Alzheimer's or Parkinson's (see Appendix 2 for the verbatim preamble). Respondents were also told that tissue used in such research is retrieved from aborted, miscarried, and stillborn fetuses.

Once the issue of fetal tissue research to treat disease was introduced, respondents were asked their opinion about whether the origin of the fetal tissue should determine its use in research to treat disease. Table 15 lists the three views read to respondents and the percentage who endorsed each position. Only a small minority (10%) were opposed to the use of fetal

tissue under any circumstances, while nearly half (48%) felt that such research should be allowed to proceed with all types of fetal tissue. A strong minority (37%), however, felt that the type of tissue used should be restricted to circumstances in which the fetal tissue becomes available "naturally" (e.g., spontaneous miscarriages and stillborn fetuses).

Few meaningful sociodemographic differences were observed on this issue, though education (ϕ = 0.14) showed a weak trend worth mentioning. Generally, a higher percentage of those with some post-secondary education (53%) would permit the use of all types of fetal tissue, compared to high school graduates (43%) and those who never finished high school (39%). Also, nearly one in 10 (9%) of those who never finished high school failed to provide an opinion on this issue, compared to 4% of those in the other two educational groups.

	%
No fetal tissue should be used in any circumstances	10
It should be restricted to only tissue arising from natural miscarriages and stillborn fetuses	37
It should be permitted with all types of fetal tissue, including stillborn, miscarried, and aborted fetuses	48
No response	5

Circumstances in Which It Is Permissible to Use Fetal Tissue

The types of circumstances in which respondents would permit the use of fetal tissue were also assessed. Specifically, respondents' attitudes toward the use of fetal tissue in the three different circumstances outlined in Table 16 were explored. As indicated in this table, a strong majority (84%) felt that use of fetal tissue to treat fatal diseases should be allowed. Slightly fewer, though still a clear majority (77%), also approved of the use of fetal tissue in medical research. However, when it came to the use of fetal tissue for commercial purposes, such as the testing of cosmetics to see if they are safe for human use, few respondents (18%) said that the use of fetal tissue should be allowed under this type of circumstance. There were no meaningful sociodemographic differences for any of the circumstances considered.

Table 16. Circumstances in Which It Is Permissible to Use Fetal Tissue

	Should be allowed	Should not be allowed	Depends (not read)	No response	
To treat fatal diseases such as Alzheimer's or Parkinson's	84	12	2	2	
For medical research	77	16	6	2	
For commercial purposes such as testing cosmetics and other products to see if they are safe for humans	18	77	3	2	

Expected Behaviour if Faced with Serious Disease Treatable with Fetal Tissue

Respondents were asked to consider what they would do if they were suffering from a serious disease that could be treated through the use of fetal tissue. Seventy-two percent said that they would undergo the treatment and only 13% said they would not. Eight percent did volunteer that it depended on the circumstances (the most popular conditions mentioned in the follow-up question included only with tissue from non-aborted fetuses; it depended on how ill; and if proven to work). The remaining 6% of respondents failed to answer this question. No particularly meaningful differences on any of the sociodemographic variables were observed.

Fetal Tissue to Treat Disease: Perceived Impacts

The perceived impact of the use of fetal tissue was explored through two different statements. One statement suggested that the use of fetal tissue would create a demand for terminated fetuses, while the other statement suggested that the decision to terminate a pregnancy could be kept separate from the use of fetal tissue. Respondents were asked whether they agreed or disagreed with these statements using a 1 (totally disagree) to 7 (totally agree) scale. The order in which the statements were presented was rotated across respondents.

Results indicated that 33% of respondents felt that "using fetal tissue to treat disease will create a demand for terminated (aborted) fetuses and

the number of terminations (abortions) in Canada will increase as a result." However, 54% of respondents disagreed with this statement, 10% were "neutral," and 4% failed to respond. Consistent with the results of this first statement, 56% of respondents agreed that "the decision of whether or not to terminate a pregnancy can be kept separate from the use of the fetal tissue." However, 23% disagreed with this statement, 13% of respondents were "neutral," and 7% failed to respond.

Only one sociodemographic difference trend was observed for either of these questions. On the issue of keeping pregnancy termination decisions separate from the use of fetal tissue, educational groups demonstrated some marginal differences ($\phi=0.17$). Comparison of educational groups indicated that agreement with this statement increased as education level increased (and disagreement decreased as education increased). Sixty-five percent of those with some post-secondary education agreed that the issues of pregnancy termination and fetal tissue use could be kept separate, compared to 52% of high school graduates and 43% of those with less than a high school education. Interestingly, educational groups failed to meaningfully differ on the issue of whether fetal tissue use will create a demand for terminated fetuses.

Use of Fetal Tissue: Discussion

Contrary to reported focus group results, awareness of the use of fetal tissue to treat disease was relatively low among survey respondents. Less than one-third of those surveyed were able to name a disease currently being treated with fetal tissue. Conversely, 57% indicated they were unaware of fetal tissue research to treat disease.

Once awareness of fetal tissue research to treat disease was assessed, respondents were informed of the existence of such research and that it might prove helpful in the treatment of such diseases as Alzheimer's and Parkinson's. Respondents were also informed that the tissue used in such research is retrieved from "... aborted, miscarried and stillborn fetuses." When asked whether the origin of the fetal tissue should determine its use in research to treat disease, nearly half of all respondents felt that the source of the tissue was not relevant. Only 10% of all respondents felt that no fetal tissue should be used in any circumstances. However, just over one-third of respondents felt that the source of the tissue was important and that use should be restricted to tissue arising from natural miscarriages and stillborn fetuses.

The finding that a strong minority of respondents would restrict the type of fetal tissue used to treat disease was expected, given focus group results. However, when interpreting these results, it should be kept in mind that the preamble introducing the issue of fetal tissue research, as well as the way the question was structured, creates the impression that neither the quality nor the availability of treatment would be affected by restricting tissue sources. This in fact is not the case, as the only practical source of usable tissue for the foreseeable future is from terminations. ¹⁵ It

is possible that a higher percentage of respondents would have supported the use of all types of fetal tissue in research if this potential trade-off had been made clear to them.

Survey respondents were also asked to consider under which circumstances the use of fetal tissue should be permitted. Results were consistent with expectations generated from focus groups. A strong majority of respondents (84%) felt that the use of fetal tissue should be allowed in the treatment of fatal diseases and nearly as many (77%) would allow the use of fetal tissue in medical research. However, like focus group respondents, the great majority of those surveyed were against the use of fetal tissue in purely commercial situations, such as the testing of cosmetics. Only 18% of respondents would allow the use of fetal tissue under this circumstance.

During the focus groups, it was the commercialization of the use of fetal tissue that was seen as most likely to create a demand for human fetuses, though this concern was not limited to commercial situations. In the survey, two questions asked respondents about the possible impact of using fetal tissue to treat disease. Fifty-four percent of those surveyed felt that the use of such tissue to treat disease would not increase the demand for aborted fetuses in Canada and 56% felt that the decision to terminate a pregnancy could be kept separate from the use of fetal tissue. Only 13% of those surveyed indicated that under no circumstances would they undergo treatment using fetal tissue if they were suffering from a serious disease.

Policy Issues

The final section of the questionnaire to be reviewed in this report included a limited number of questions addressing the issue of who should decide policy related to the use of reproductive technologies. Respondents were also asked to consider whether the issues surrounding reproductive technologies should be considered exclusively "women's issues." Results for these questions are reviewed below.

Deciding the Use of Reproductive Technologies

The main question on who should make decisions on policy related to reproductive technologies listed a series of groups and organizations that could be involved in this process and respondents were asked to rate each separately on whether they should or should not be involved. Ratings were made on a 7-point scale ranging from "not involved at all" (1) to "very involved" (7). The order in which the groups/organizations were presented was rotated across respondents.

Table 17 lists the groups and organizations respondents were asked to consider. Those who indicated that a group/organization should be "involved" were defined as those making a rating of 5 to 7 on the 7-point scale and those who considered that the group/organization should be "not involved" were defined as those making a rating of 1 to 3 on the 7-point

scale. To facilitate review of these results, those who made a "neutral" rating (i.e., selecting 4 — the midpoint) have been excluded from this table, as have those who provided "no response" (see Appendix 2). Review of the results for the different groups/organizations indicated that the percentage who made "neutral" ratings was highly similar across the different alternatives (except for doctors and medical research scientists, the percentage of neutral ratings ranged from 10% to 15%). Furthermore, for each of the groups/organizations reviewed, 2% or fewer failed to provide a rating.

Table 17. Who Should Be Involved in Deciding the Use of Reproductive Technologies

Doctors Medical research scientists People who have had personal	88 80	6
People who have had personal	80	10
· · · · · · · · · · · · · · · · · · ·		
experience with the issues	61	. 23
Academics	50	33
Women's groups	47	36
General public	41	44
Federal government	40	46
Provincial government	37	48
Judges	30	56
Churches and religious groups	26	63
Lawyers	21	65

It is clear from Table 17 that those who received strong majority acceptance for their involvement included doctors (88%) and medical research scientists (80%). Fewer, though still a majority of, respondents felt that those who have had personal experience with the issues (61%) should be involved in the decision-making process. About half of all respondents felt that academics (50%) and women's groups (47%) should be involved in deciding the use of the technologies. Respondents also tended to be split on whether the federal government (40%) and their provincial government (37%) should be involved in making decisions in this area, and even the "general public" failed to receive endorsement from a majority of respondents (41%). Finally, those who respondents tended to

agree should not be involved included religious groups and lawyers. Only about one-quarter of all respondents felt that either of these groups should be involved in deciding the use of reproductive technologies. Due to the large number of groups and organizations considered, results across the sociodemographic variables were not formally analyzed. However, visual analysis of the results suggested that no sociodemographic variable demonstrated a consistent difference across groups/organizations.

From the results in Table 17, it would appear that doctors (and medical research scientists) are considered the experts in this area and are considered the ones most qualified to make decisions about the use of reproductive technologies. This interpretation is consistent with results for a question that asked respondents who they would approach if they wanted more information on reproductive technologies. This question was openended and multiple responses were possible. The most common response was "doctors" — 64% volunteered that they would approach a doctor if they wanted more information. The next most popular response was to approach a medical research scientist for information; however, only 15% volunteered this response. Approaching the federal government or their provincial government for information was mentioned by 9% of respondents in each case. No other group or organization was mentioned by more than 5% of respondents.

Wide acceptance of the involvement of doctors in decisions related to reproductive technologies is particularly interesting in light of results from some of the general statements presented to respondents in other sections of the questionnaire. For example, respondents were asked to respond to the statement: "Doctors are no more qualified than any other people to make moral and ethical judgements." On a 1 to 7 scale, 56% "agreed" with this statement (ratings of 5 to 7) and 30% "disagreed" (ratings of 1 to 3). Twelve percent appeared neutral on this issue and very few (1%) failed to provide an opinion. In other words, despite the strong majority endorsement for their involvement in the decisions related to reproductive technologies, over half of respondents felt that doctors were no more

qualified than others to make moral and ethical judgments.

Results for another statement also suggest that about half of all respondents expressed some scepticism about the intentions of doctors. Specifically, respondents were asked whether they agreed or disagreed with the statement: "I think some members of the medical profession are more interested in getting money and personal recognition than they are in the people they are looking after." This seems to speak to the issue of trust and 54% "agreed" with the statement (ratings of 5 to 7). Only a minority (26%) disagreed, nearly as many failed to provide an opinion either way (17%), and only 1% gave no response at all. It should be noted, however, that inclusion of the word "some" does make this statement difficult to interpret.

Reproductive Technologies — A Women's Issue?

The final question to be considered asked respondents whether the issues surrounding reproductive technologies represent primarily women's issues. Specifically, the following preamble was read to respondents:

"Some people have said that the issues surrounding reproductive technologies are basically women's issues. Others believe that these are issues which affect both men and women equally. Still others say that these technologies involve both men and women, but that special consideration must be given to women's views in these areas. Which of these three views is closest to your own?"

Only 4% of all respondents saw the issues surrounding reproductive technologies as issues affecting women exclusively. The rest of respondents were split between considering them "issues that affect both men and women equally" (42%) and considering them "issues that affect both men and women equally, but women's views should be given special consideration" (53%). Only 1% of all respondents failed to provide an opinion.

Only one sociodemographic variable produced a difference trend worth mentioning and that was education (ϕ = 0.16). Results indicated that those with at least some post-secondary education were more likely than the other two educational groups to state that reproductive technology issues involve both men and women, but that special consideration should be given to women's views. Sixty percent of those with some post-secondary education selected this option, compared to 48% of high school graduates and 43% of those who failed to finish high school.

Policy Issues: Discussion

Who should decide policy related to reproductive technologies is a complex issue and one that received limited attention in this survey. The main question addressing policy asked respondents to consider who should be involved in this decision-making process. Only doctors and medical research scientists received endorsement for their involvement from a strong majority of respondents. Few other groups or organizations received majority support for their involvement, and even the involvement of different levels of government, the traditional policy makers, failed to receive a clear mandate from those surveyed.

It is likely that most respondents endorsed the involvement of doctors and medical research scientists because such individuals are perceived as the experts. Indeed, when asked who they would approach for information on reproductive technology issues, a majority of respondents volunteered that they would approach a doctor. However, moral and ethical issues are likely to play a key role in determining society's response to reproductive technologies, and with respect to this issue many respondents (about half) perceived doctors to be no better qualified than other people to make such decisions.

These types of issues also emerged during focus group sessions, and, except for a commitment to the involvement of doctors as experts, no clear picture was reached of exactly who should be involved in the decision-making process. However, what did emerge from all sessions was that participants envisioned a multidisciplinary approach for setting guidelines for the use of reproductive technologies. This approach was perceived as absolutely necessary, given the high level of potential misuse of the various technologies.

Appendix 1. Subsample Sizes (Weighted) and Cross-Tabulated Tables for Sociodemographic Variables

Demographic variable	Angus Reid Group survey (1 503)
Region	
Atlantic	137
Quebec	391
Ontario	539
Prairies	264
British Columbia	172
Age	
18-34	605
35-54	495
55+	403
Education	
Less than high school	348
High school graduate	352
Some post-secondary education	795
Household income	
Less than \$20 000	332
\$20 000 to \$40 000	466
More than \$40 000	586
Gender	
Male	731
Female	772

All values reported in the following tables are percentages.

			Region		
Age	Atl.	Que.	Ont.	Prairies	ВС
18-34	41	40	39	43	38
35-54	32	34	33	31	33
55+	27	26	28	26	29

(Sample statistically weighted on both these variables.)

	Region							
Income	Atl.	Que.	Ont.	Prairies	ВС			
Less than \$20 000	31	26	18	21	23			
\$20 000 - \$40 000	33	33	29	32	33			
More than \$40 000	28	37	44	38	37			
No response	9	5	9	9	8			
$\chi^2 = 22.18$ $\phi = 0.13$								

Education Less than high school High school graduate Some post-secondary education	Region							
	Atl.	Que.	Ont.	Prairies	ВС			
Less than high school	38	23	22	22	17			
High school graduate	21	21	24	27	22			
	37	57	53	50	62			
No response	4	0	<1	<1	C			
$\chi^2 = 30.32$ $\phi = 0.14$								

		Region						
Gender	Atl.	Que.	Ont.	Prairies	ВС			
Male	49	48	48	50	49			
Female	51	52	52	50	51			

(Sample statistically weighted on both these variables.)

Gender			
	18-34	35-54	55+
Male	50	50	45
Female	50	50	55

(Sample statistically weighted on both these variables.)

	Age					
Education	18-34	35-54	55+			
ess than high school	15	23	35			
High school graduate	25	21	24			
Some post-secondary education	59	56	40			
No response	<1	0	1			
$\chi^2 = 65.11$ $\phi = 0.21$						

	Age					
Income	18-34	35-54	55+			
Less than \$20 000	23	13	32			
\$20 000 - \$40 000	36	24	32			
More than \$40 000	36	56	23			
No response	5	6	14			
$\chi^2 = 116.04$ $\phi = 0.29$						

	Gender				
Income	Male	Female			
Less than \$20 000	16	28			
\$20 000 - \$40 000	30	32			
More than \$40 000	48	30			
No response	6	10			
$\chi^2 = 59.33$ $\phi = 0.21$					

	Gender				
Education	Male	Female			
Less than high school	19	26			
High school graduate	23	23			
Some post-secondary education	57	49			
No response	<1	1			
$\chi^2 = 12.58$ $\phi = 0.09$					

	Education						
Income	Less than high school	High school graduate	Some post-secondary education				
Less than \$20 000	41	23	13				
\$20 000 - \$40 000	28	35	31				
More than \$40 000	20	32	50				
No response	10	9	6				
$\chi^2 = 157.03$ $\phi = 0.34$							

Appendix 2. Complete Tables of Text Questions Cross-Tabulated with Sociodemographic Variables

This appendix includes the complete set of sociodemographic tables for each survey question reviewed in this report. The tables are presented in the order survey questions have been reviewed in the text. All values reported in these tables are percentages.

For each cross-tabulated table, the calculated chi-square value has been reported. All chi-square tests were computed based only on valid responses (i.e., those indicating "no response" were excluded from the analysis). The statistical significance of chi-square values was tested against alpha = 0.01 (obtained probability values greater than 0.01 have been listed as not statistically significant). Phi coefficient values have also been reported for those cross-tabulations in which the chi-square value was found to be statistically significant.

Infertility and Related Issues

"Contact" with Someone Who Has Experienced an Infertility Problem

Do you know anyone, among your immediate family or your close friends, who has had an infertility problem?

Angus Reid Group	Region					Gender		Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
Yes	37	44	41	45	49	38	47	43	51	33
No	61	56	59	53	50	61	52	57	49	65
No response	1	0	1	1	1	1	1	0	0	2
	$\chi^2 = \epsilon$	$\chi^2 = 6.19$, n.s.					12.73 0.09	$\chi^2 = \phi = 0$	25.79).13	

Angus Reid Group		Education		Income				
	Less than high school	High school graduate	Some post-sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Yes	35	35	50	31	42	52		
No	64	64	49	68	57	48		
No response	1	1	1	1	1	0		
	$\chi^2 = 33.51$ $\phi = 0.15$			$\chi^2 = 37.28$ $\phi = 0.16$				

Infertility and Related Issues

Perceived Prevalence of Infertility

Now I would like to ask you a few questions about infertility, which is the inability of individuals to produce children after trying for at least one year. How common do you think infertility is in Canada?* Do you think it affects ...?

Angus Reid Group		Region					der	Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
About 5% of Canadians	6	13	6	7	12	12	6	6	10	10
About 10%	22	25	19	23	. 21	27	16	20	24	21
About 20%	28	26	33	31	35	31	31	34	29	28
About 30%	17	18	16	23	17	13	22	20	18	13
About 40%	7	4	6	5	4	5	6	7	5	4
More than 40%	7	4	7	3	4	4	6	7	4	4
No response	13	10	14	8	7	9	13	6	10	19
	1 / 0						.67 0	$\chi^2 = 2$ $\phi = 0$		

Angus Reid Group		Education			Income	
	Less than high school	High school graduate	Some post-	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000
About 5% of						
Canadians	7	9	9	10	10	8
About 10%	16	24	23	16	21	27
About 20%	26	26	35	27	33	32
About 30%	16	20	17	18	16	18
About 40%	9	4	5	8	4	5
More than 40%	10	6	3	8	6	2
No response	16	11	9	13	10	8
	$\chi^2 = 48.55$ $\phi = 0.19$			$\chi^2 = 22.52$ $\phi = 0.13$		

^{*} For the purpose of statistical analysis, the first two response categories were collapsed into one response category (10% or less) and the last two response categories were collapsed into one response category (40% or more).

Infertility and Related Issues

Awareness of Methods to Help Infertile People

Are you aware of any new methods which can be used to help infertile people have a child?

Angus Reid Group	Region					Gender		Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
Aware and method named	36	64	54	50	65	52	58	56	66	41
Not aware	59	29	38	34	29	37	34	36	27	46
No response	4	8	8	16	6	10	8	8	7	13
	$\chi^2 = 44.29$ $\phi = 0.18$					$\chi^2 =$	3.67, n.s.	$\chi^2 = 0$ $\varphi = 0$		

Angus Reid Group		Education		Income					
	Less High Some than high school post- school graduate sec.			Less than \$20 000	\$20 000 to \$40 000	More than \$40 000			
Aware and method named	40	51	65	41	57	66			
Not aware	49	42	27	47	35	28			
No response	12	7	9	12	8	. 6			
	$\chi^2 = 68.28$ $\phi = 0.22$			$\chi^2 = 45.28$ $\phi = 0.19$					

Infertility and Related Issues

Expected Behaviour if Infertile

Suppose for one moment that you or your partner wanted to have a child and couldn't. What would you do?

Angus Reid Group	Region					Ge	nder		Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+	
Accept it, remain childless	13	13	11	7	9	9	12	9	12	12	
Adopt a child	58	51	55	54	59	55	54	48	53	66	
Use methods like	21	32	31	35	32	33	30	41	32	16	
No response	7	5	6	7	2	6	5	4	5	8	
	$\chi^2 = 13.36$, n.s.					$\chi^2 =$	5.04, n.s.	$\chi^2 = 0$ $\phi = 0$			

Angus Reid Group		Education		Income				
	Less High Some than high school post- school graduate sec.		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000			
Accept it, remain childless	14	9	·10	14	11	8		
Adopt a child	63	58	49	61	54	50		
Use methods like IVF	20	28	38	22	33	40		
No response	5	7	5	5	5	5		
	$\chi^2 = 41.55$ $\phi = 0.17$			$\chi^2 = 34.21$ $\phi = 0.16$				

Access to IVF

One of the methods for overcoming infertility is called *in vitro* fertilization or IVF. This involves removing eggs from a woman and mixing them with sperm from a man in a glass dish. After fertilization has occurred, the fertilized eggs are placed into a woman's womb where they will finish developing.

When people wish to become pregnant using IVF, do you think they should be screened in any way, to determine their suitability as parents?

Angus Reid Group		Region					Gender		Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+	
Yes	60	43	49	40	49	47	46	42	44	58	
No	33	53	47	56	47	50	48	55	51	36	
No response	7	4	5	4	4	3	6	3	5	7	
	$\chi^2 = 2$ $\phi = 0$					$\chi^2 =$	0.02, n.s.	$\chi^2 = 3$ $\phi = 0$	34.05).15		

Angus Reid Group		Education		Income				
	Less than high school	than high school post-		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Yes	57	47	42	52	49	39		
No	38	48	54	42	47	57		
No response	5	5	5	6	4	3		
	$\chi^2 = 24.59$ $\phi = 0.13$			$\chi^2 = 20.41$ $\phi = 0.12$				

Access to IVF

In your opinion, who should be eligible for IVF? I am going to read you a list of different types of people and I would like you to tell me if you think they should be eligible for this type of service.

Married couples

Angus Reid Group		Region							Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+	
Yes	94	94	94	94	96	95	93	98	94	89	
No	4	3	4	3	4	3	4	1	3	9	
Depends (not read)	1	3	2	2	1	2	2	1	3	2	
No response	1	0	0	0	0	0	0	0	1	1	
	$\chi^2 = 3.13$, n.s.					χ² =	3.23, n.s.	$\chi^2 = \xi$ $\phi = 0$			

Angus Reid Group		Education		Income				
	Less High Some than high school post- school graduate sec.			Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Yes	90	94	96	93	95	95		
No	7	4	2	5	3	2		
Depends (not read)	3	2	2	2	2	3		
No response	0	1	0	0	1	0		
	$\chi^2 = 22.03$ $\phi = 0.12$			$\chi^2 = 12.12$	2, n.s.			

Access to IVF

In your opinion, who should be eligible for IVF? I am going to read you a list of different types of people and I would like you to tell me if you think they should be eligible for this type of service.

Common law couples

Angus Reid Group		Region				Gei	nder	Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
Yes	61	78	63	59	73	73	62	80	71	44
No	27	16	30	31	23	21	30	15	21	47
Depends (not read)	9	4	5	8	4	5	6	4	6	6
No response	4	2	1	1	1	1	2	1	2	2
	$\chi^2 = 41.77$ $\phi = 0.17$					$\chi^2 = 0$ $\phi = 0$	21.27 .12	$\chi^2 = \phi = 0$	155.26).32	

Angus Reid Group		Education		Income				
	Less High Some than high school post-school graduate sec.		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000			
Yes	52	65	75	61	68	74		
No	41	27	19	32	24	20		
Depends (not read)	5	6	5	5	6	5		
No response	2	1	1	2	2	1		
	$\chi^2 = 67.22$ $\phi = 0.21$			$\chi^2 = 20.06$ $\phi = 0.12$				

Access to IVF

In your opinion, who should be eligible for IVF? I am going to read you a list of different types of people and I would like you to tell me if you think they should be eligible for this type of service.

Single women

Angus Reid Group	Region					Gender			Age		
	Atl.	Que.	Ont.	Prairies	ВС	M	F	18- 34	35- 54	55+	
Yes	41	60	49	46	56	55	49	63	54	31	
No	41	34	38	44	37	35	41	29	35	56	
Depends (not read)	15	5	12	6	6	8	9	7	9	11	
No response	3	1	1	3	0	1	2	1	2	1	
	$\chi^2 = 36.54$ $\phi = 0.16$					$\chi^2 = \frac{1}{2}$	5.67, n.s.	$\chi^2 = 0$ $\phi = 0$	102.48		

Angus Reid Group	E	Education		Income				
	Less High Some than high school post-school graduate sec.			Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Yes	33	51	60	46	53	57		
No	55	39	31	44	37	33		
Depends (not read)	11	9	7	10	9	8		
No response	1	1	2	1	1	2		
	$\chi^2 = 74.97$ $\phi = 0.23$			$\chi^2 = 12.00$ $\phi = 0.09$				

Access to IVF

In your opinion, who should be eligible for IVF? I am going to read you a list of different types of people and I would like you to tell me if you think they should be eligible for this type of service.

A single man and a surrogate mother

Angus Reid Group		Region				Gender		Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
Yes	37	45	37	35	41	42	36	53	37	21
No	47	48	52	52	52	47	54	37	51	70
Depends (not read)	11	4	9	7	2	7	6	7	7	6
No response	5	2	3	5	4	3	4	3	5	3
	$\chi^2 = 2$ $\varphi = 0$					1 **	6.73, n.s.	$\chi^2 = \phi = 0$	112.77).28	

Angus Reid Group		Education		Income				
	Less than high school	High school graduate	Some post-sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Yes	28	41	43	38	40	41		
No	61	50	46	52	50	48		
Depends (not read)	8	4	8	6	6	8		
No response	3	4	3	4	4	3		
	$\chi^2 = 30.32$ $\phi = 0.14$			$\chi^2 = 3.76$, n.s.				

Access to IVF

In your opinion, who should be eligible for IVF? I am going to read you a list of different types of people and I would like you to tell me if you think they should be eligible for this type of service.

Homosexual female couples

Angus Reid Group		Region					nder		Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+	
Yes	13	30	22	27	29	26	24	32	26	12	
No	80	66	69	65	65	68	69	60	65	84	
Depends (not read)	3	2	6	4	3	-4	4	6	4	1	
No response	4	3	3	4	2	3	3	2	5	2	
	$\chi^2 = 30.56$ $\phi = 0.14$					$\chi^2 =$	0.83, n.s.	$\chi^2 = 0$ $\phi = 0$			

Angus Reid Group		Education		Income				
	Less High Some than high school post-school graduate sec.		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000			
Yes	12	21	32	20	25	28		
No	79	73	61	73	68	65		
Depends (not read)	4	4	4	4	4	4		
No response	3	2	3	3	3	3		
	$\chi^2 = 49.18$ $\phi = 0.18$			$\chi^2 = 6.90, r$	n.s.			

Access to IVF

In your opinion, who should be eligible for IVF? I am going to read you a list of different types of people and I would like you to tell me if you think they should be eligible for this type of service.

A homosexual male couple with a surrogate mother

Angus Reid Group	Region					Gender			Age		
	Atl.	Que.	Ont.	Prairies	вс	М	F	18- 34	35- 54	55+	
Yes	10	24	17	21	21	20	19	26	19	9	
No	84	70	75	71	73	74	73	66	73	87	
Depends (not read)	3	3	5	3	3	3	5	5	4	2	
No response	3	3	3	4	2	3	3	3	4	2	
	$\chi^2 = 19.70$, n.s.					χ² =	1.35, n.s.	$\chi^2 = 0$ $\phi = 0$	59.39 0.20		

Angus Reid Group		Education		Income				
	Less High Some than high school post- school graduate sec.		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000			
Yes	8	18	25	17	20	21		
No	84	76	68	75	74	71		
Depends (not read)	4	3	4	5	4	4		
No response	3	3	3	4	3	3		
	$\chi^2 = 45.14$ $\phi = 0.18$			$\chi^2 = 3.20$, I	n.s.			

Perceived Success of IVF

How successful do you suppose this method is? Out of every ten couples who undergo IVF, how many do you think have a baby?

Angus Reid Group		Region					nder		Age	
	Atl.	Que.	Ont.	Prairies	ВС	M	F	18- 34	35- 54	55+
Less than 20%	31	36	31	33	31	29	36	30	39	30
20 to 40%	22	25	27	26	26	25	27	25	23	29
40 to 60%	22	18	14	20	21	19	16	23	15	13
60 to 80%	12	9	9	8	14	13	7	12	9	6
80 to 100%	2	4	5	3	1	5	2	4	4	3
No response	12	9	14	9	6	10	12	6	10	20
	$\chi^2 = 20.82$, n.s.					$\chi^2 = 3$ $\phi = 0$	28.25 .15	$\chi^2 = 3$ $\phi = 0$		

Angus Reid Group		Education			Income		
	Less High Some than high school post-school graduate sec.		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Less than 20%	26	30	37	30	32	36	
20 to 40%	30	26	24	24	27	25	
40 to 60%	17	18	18	19	20	18	
60 to 80%	7	10	10	8	8	12	
80 to 100%	3	5	4	4	3	4	
No response	17	12	7	14	11	6	
	$\chi^2 = 15.59$,	n.s.		$\chi^2 = 8.49$, n.s.			

Distribution of In Vitro Fertilized Eggs

I am going to read you a list of possible ways to deal with the excess fertilized eggs which may be produced during IVF and I would like you to tell me which of the following, if any, should be permitted.

Destroy the excess fertilized eggs

Angus Reid Group	Region					Ger	nder		Age		
	Atl.	Que.	Ont.	Prairies	вс	М	F	18- 34	35- 54	55+	
Yes	45	51	56	53	61	58	50	50	58	54	
No	37	37	31	30	31	31	35	39	29	29	
Depends (not read)	7	4	7	10	3	7	6	7	6	6	
No response	12	8	6	7	5	5	9	4	7	11	
	$\chi^2 = 18.85$, n.s.					$\chi^2 =$	6.81, n.s.	$\chi^2 = \phi = 0$			

Angus Reid Group		Education		Income				
	Less High Some than high school post-school graduate sec.			Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Yes	47	53	58	51	51	60		
No	37	35	30	35	35	30		
Depends (not read)	7	5	6	7	6	6		
No response	9	7	6	7	8	4		
	$\chi^2 = 10.75$	n.s.		$\chi^2 = 7.47$, r	n.s.			

Distribution of In Vitro Fertilized Eggs

I am going to read you a list of possible ways to deal with the excess fertilized eggs which may be produced during IVF and I would like you to tell me which of the following, if any, should be permitted.

Freeze them for future use by the same people

Angus Reid Group		Region					nder	Age		
	Atl.	I. Que. Ont. Prairies BC				М	F	18- 34	35- 54	55+
Yes	56	66	62	65	68	66	61	71	65	51
No	29	29	32	28	29	28	31	25	27	41
Depends (not read)	7	2	4	4	1	4	3	3	4	3
No response	8	3	2	4	2	2	5	1	4	6
	$\chi^2 = 1$	16.26, n.	$\chi^2 = 1$	2.63, n.s.	$\chi^2 = 4$ $\phi = 0$					

Angus Reid Group		Education		Income				
	Less than high school	High school graduate	Some post-sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Yes	54	61	69	59	63	70		
No	36	32	26	35	29	24		
Depends (not read)	4	3	3	2	4	4		
No response	6	4	2	4	4	2		
	$\chi^2 = 18.83$ $\phi = 0.11$			$\chi^2 = 15.87$ $\phi = 0.11$				

Distribution of In Vitro Fertilized Eggs

I am going to read you a list of possible ways to deal with the excess fertilized eggs which may be produced during IVF and I would like you to tell me which of the following, if any, should be permitted.

Give them to other infertile people

Angus Reid Group	Region					Gender		Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
Yes	46	57	44	40	48	49	46	55	46	36
No	40	35	44	46	45	41	43	36	41	52
Depends (not read)	7	6	9	11	3	8	7	8	8	8
No response	7	3	2	3	3	2	4	1	4	4
	$\chi^2 = 30.40$ $\phi = 0.14$				$\chi^2 =$	1.55, n.s.	$\chi^2 = 3$ $\varphi = 0$			

Angus Reid Group		Education		Income			
	Less High Some than high school post-school graduate sec.		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Yes	42	46	50	47	46	50	
No	46	44	39	44	42	39	
Depends (not read)	8	7	8	7	8	9	
No response	4	2	3	3	4	2	
	$\chi^2 = 7.15, 1$	n.s.		$\chi^2 = 3.17$, 1	n.s.		

Distribution of In Vitro Fertilized Eggs

I am going to read you a list of possible ways to deal with the excess fertilized eggs which may be produced during IVF and I would like you to tell me which of the following, if any, should be permitted.

Provide them for research and experimentation

Angus Reid Group	Region					Gender		Age		
	Atl.	Que.	Ont.	Prairies	вс	М	F	18- 34	35- 54	55+
Yes	36	50	39	34	32	44	36	42	37	40
No	54	42	51	56	63	48	55	50	55	48
Depends (not read)	4	4	7	7	5	6	5	6	5	6
No response	6	3	3	3	0	2	3	1	3	6
	$\chi^2 = 30.40$ $\phi = 0.14$					$\chi^2 = 9.80$ $\phi = 0.08$		$\chi^2 = 4.52$, n.s.		

Angus Reid Group		Education		Income			
	Less High Some than high school post-school graduate sec.		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Yes	36	42	40	44	40	38	
No	54	49	51	49	49	54	
Depends (not read)	5	5	7	5	7	6	
No response	5	4	2	2	4	2	
	$\chi^2 = 3.64$, 1	n.s.		$\chi^2 = 4.03$, r	n.s.		

Issues Related to In Vitro Fertilization

Payment for IVF

In your opinion, which of the following ways, if any, should IVF be paid for?

Angus Reid Group			Regio	n		Ger	nder		Age	
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
Entirely by the health care system	6	12	12	8	8	10	10	10	11	9
Entirely by the individuals	34	22	23	28	25	29	21	16	27	36
Half by the health care system and half by the individuals, or	14	31	29	25	23	25	28	33	25	20
Should the amount the individuals pay be based on their income	40	33	32	38	44	33	37	38	35	32
No response*	5	2	4	2	1	2	4	2	2	4
	$\chi^2 = 36.71$ $\phi = 0.16$					$\chi^2 = 1$ $\varphi = 0$		$\chi^2 = 5$ $\phi = 0$		

Angus Reid Group	1	Education			Income		
	Less than high school	High school graduate	Some post- sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000	
Entirely by the health care system	10	13	9	9	10	10	
Entirely by the individuals	28	24	24	23	24	24	
Half by the health care system and half by the individuals, or	26	23	29	23	26	31	
Should the amount the individuals pay be based on their income	32	37	36	41	36	33	
No response*	5	3	2	4	3	1	
	$\chi^2 = 9.76$, n	ı.s.		$\chi^2 = 10.63$, n.s.			

^{*} This category includes the small number of respondents who mentioned a payment option other than those listed. Other payment options were not mentioned by more than 2% of respondents in any sociodemographic subcategory.

When Should Surrogacy Be Allowed?

In which of the following circumstances should surrogacy be allowed?

When the woman who wishes to raise a child cannot conceive

Angus Reid Group			Regio	n		Gender			Age	Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+		
Should be allowed	72	68	60	63	63	69	59	74	63	50		
Should not be allowed	16	26	30	27	30	22	32	20	28	37		
Depends (not read)	11	3	8	7	5	7	6	5	6	10		
No response	1	3	2	3	2	2	2	1	3	3		
	$\chi^2 = 24.64$ $\phi = 0.13$						20.93 0.12	$\chi^2 = \phi = 0$	60.77			

Angus Reid Group		Education			Income		
	Less High Some than high school post- school graduate sec.		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Should be allowed	62	61	66	63	64	66	
Should not be allowed	30	28	26	28	26	27	
Depends (not read)	6	8	6	8	7	6	
No response	2	3	2	2	3	2	
	$\chi^2 = 3.46$, n	. S.		$\chi^2 = 2.13$, n.s.			

When Should Surrogacy be Allowed?

In which of the following circumstances should surrogacy be allowed?

When it would endanger the health of the woman who wishes to raise the child if she were to become pregnant

Angus Reid Group		Region						Age		
	Atl.	Que.	Ont.	Prairies	ВС	M	F	18- 34	35- 54	55+
Should be allowed	60	69	54	58	60	65	55	70	61	43
Should not be allowed	31	29	39	35	35	30	38	27	32	48
Depends (not read)	7	1	5	4	1	4	3	3	4	4
No response	2	1	3	3	5	2	3	0	3	5
	$\chi^2 = 31.50$ $\phi = 0.15$					$\chi^2 = 1$ $\phi = 0.$		$\chi^2 = \phi = 0$	63.21).21	

Angus Reid Group		Education			Income	
	Less than high school	High school graduate	Some post-sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000
Should be allowed	49	56	67	55	61	64
Should not be allowed	46	37	28	39	33	30
Depends (not read)	3	3	4	3	3	4
No response	3	4	2	3	3	2
	$\chi^2 = 38.29$ $\phi = 0.16$			$\chi^2 = 11.70, r$	n.s.	

When Should Surrogacy be Allowed?

In which of the following circumstances should surrogacy be allowed?

When the woman who wishes to raise the child would rather not be pregnant or give birth

Angus Reid Group		Region							Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+	
Should be allowed	10	16	14	15	15	16	13	19	14	8	
Should not be allowed	84	80	80	80	81	78	83	79	80	84	
Depends (not read)	4	1	3	3	2	4	1	2	2	4	
No response	2	2	3	2	2	2	3	1	3	4	
	$\chi^2 = 5.42$, n.s.					$\chi^2 = \phi = 0$		$\chi^2 = \phi = 0$	25.75).13		

Angus Reid Group		Education		Income				
	Less High Some than high school post-school graduate sec.		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000			
Should be allowed	12	19	14	18	15	13		
Should not be allowed	83	76	82	78	80	82		
Depends (not read)	2	2	3	2	2	2		
No response	2	4	2	2	3	2		
	$\chi^2 = 8.15$, 1	n.s.		$\chi^2 = 3.84$, n.s.				

When Should Surrogacy be Allowed?

In which of the following circumstances should surrogacy be allowed?

When a man wishes to raise a child

Angus Reid Group		Region					nder	Age		
	Atl.	Que.	Ont.	Prairies	вс	М	F	18- 34	35- 54	55+
Should be allowed	38	37	36	38	38	40	35	53	33	19
Should not be allowed	54	55	56	53	56	53	56	42	56	73
Depends (not read)	5	5	6	8	3	5	6	4	7	5
No response	3	2	2	2	3	2	3	1	3	3
	$\chi^2 = 4$	$\chi^2 = 4.80$, n.s.					4.11, n.s.	$\chi^2 = 0$ $\phi = 0$	125.81	

Angus Reid Group		Education			Income		
	Less High Some than high school post- school graduate sec.		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Should be allowed	30	38	40	39	38	38	
Should not be allowed	60	55	52	53	55	54	
Depends (not read)	8	4	5	6	5	6	
No response	2	2	3	2	3	2	
	$\chi^2 = 12.90,$	n.s.		$\chi^2 = 0.41$, n.s.			

Paid and Unpaid Surrogacy

In a surrogate relationship, the surrogate mother may or may not be paid for her services. In your opinion ... ?

Should paid surrogacy be permitted in Canada?

Angus Reid Group		Region						Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
Yes	45	70	49	48	49	57	50	63	51	43
No	42	25	46	45	46	36	44	32	42	50
No response	13	5	5	7	4	7	6	5	7	7
		$\chi^2 = 55.93$ $\phi = 0.20$				$\chi^2 = 9.85$ $\phi = 0.08$		$\chi^2 = 37.43$ $\phi = 0.16$		

Angus Reid Group		Education		Income			
	Less than high school	than high school post-			\$20 000 to \$40 000	More than \$40 000	
Yes	46	50	59	54	52	57	
No	47	44	35	39	42	38	
No response	7	6	6	7	6	5	
	$\chi^2 = 19.62$ $\phi = 0.12$			$\chi^2 = 1.81$,	n.s.		

Paid and Unpaid Surrogacy

In a surrogate relationship, the surrogate mother may or may not be paid for her services. In your opinion ...?

Should unpaid surrogacy be permitted in Canada?

Angus Reid Group		Region					Gender		Age		
	Atl.	Que.	Ont.	Prairies	ВС	M	F	18- 34	35- 54	55+	
Yes	40	39	48	51	52	52	40	52	45	38	
No	41	53	45	41	42	40	51	41	46	52	
No response	19	8	7	9	6	7	9	7	9	10	
	$\chi^2 = 1$ $\phi = 0$					$\chi^2 = 0$ $\phi = 0$	22.27	$\chi^2 = \phi = 0$			

Angus Reid Group		Education		Income				
	Less High Some than high school post- school graduate sec.			Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Yes	37	45	51	36	48	52		
No	53	45	42	55	43	42		
No response	10	10	7	9	9	6		
	$\chi^2 = 16.47$ $\phi = 0.11$			$\chi^2 = 18.92$ $\phi = 0.12$				

Rights of the Surrogate

When the baby is born, do you feel that the surrogate mother should have the right to keep the baby?

Angus Reid Group			Regio	n		Gei	nder		Age	
	Atl.	Que.	Ont.	Prairies	ВС	M	F	18- 34	35- 54	55+
Yes, regardless of circumstances	13	14	14	12	10	14	13	10	17	14
Yes, in some circumstances	34	33	28	27	36	33	28	36	26	27
No	46	49	53	55	50	49	53	51	52	52
No response	7	3	5	5	3	4	6	3	5	7
	$\chi^2 = 9$	$\chi^2 = 9.69$, n.s.					4.89, n.s.	$\chi^2 = \phi = 0$	19.92	

Angus Reid Group		Education			Income		
	Less than high school	than high school post-		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000	
Yes, regardless of circumstances	18	11	13	16	12	13	
Yes, in some circumstances	27	30	32	31	32	29	
No	50	52	52	47	51	53	
No response	4	7	4	5	4	5	
	$\chi^2 = 9.60, r$	n.s.		$\chi^2 = 4.62$, n.s.			

Prenatal Diagnosis (PND)

Awareness of PND

Are you aware of anything which can be done to check the health of the fetus? What methods are you aware of?

Angus Reid Group			Regio	n		Gei	nder		Age	
	Atl. Que. Ont. Prairies BC				М	F	18- 34	35- 54	55+	
Yes, and method named	55	58	61	66	74	58	66	68	71	42
Yes, but unable to name method	3	11	9	7	8	9	8	5	9	13
No, not aware	41	30	29	27	17	33	25	26	20	43
No response	1	1	0	0	0	0	1	0	0	1
	$\chi^2 = 31.69$ $\phi = 0.15$					$\chi^2 = \phi = 0$	13.28	$\chi^2 = \phi = 0$	100.83 .26	

Angus Reid Group	E	ducation			Income	
	Less than high school	High school graduate	Some post-sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000
Yes, and method named	43	55	74	48	65	72
Yes, but unable to name method	10	9	8	11	6	8
No, not aware	47	35	17	40	28	19
No response	0	1	1	0	0	1
	$\chi^2 = 125.44$ $\phi = 0.29$			$\chi^2 = 59.58$ $\phi = 0.21$		

PND and Pregnancy Termination

There are a number of methods that can be used to assess the health of the fetus before it is born, including amniocentesis and ultrasound. By using these methods doctors can tell a lot about the fetus, including its sex, whether or not it will have Down's Syndrome, Spina Bifida or a number of other diseases and disabilities. We would like to know your opinion on what should be done when a problem with the fetus is revealed. Do you think that termination of the pregnancy ...?

Angus Reid Group			Region	1		Ge	nder		Age	
	Atl.	Que.	Ont,	Prairies	ВС	M	F	18- 34	35- 54	55+
Should not be permitted under any circumstances	17	11	47	4.0	40					
	17	11	17	16	13	15	15	12	17	17
Should be permitted in certain circumstances	47	37	44	45	43	46	39	44	41	42
Should be permitted whenever the parents										
decide	33	51	37	38	43	37	44	43	41	38
No response	4	1	2	1	1	1	2	1	1	3
	$\chi^2 = 24$ $\phi = 0.1$					$\chi^2 =$	8.54, n.s.	$\chi^2 = 8$	3.47, n	.s.

Angus Reid Group		Education			Income	
	Less than high school	High school graduate	Some post-	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000
Should not be permitted under any circumstances	19	18	12	17	15	14
Should be permitted in certain circumstances	39	43	44	39	43	45
Should be permitted whenever the parents						
decide	40	38	42	43	41	41
No response	2	1	1	2	1	1
	$\chi^2 = 11.44$,	n.s.		$\chi^2 = 3.44$,	n.s.	

PND and Pregnancy Termination

In which of the following circumstances should pregnancy termination be allowed?

When the fetus is known to have such a severe problem that the child will probably die within the first six months of life

Angus Reid Group			Regio	n		Gei	nder	Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
Allow	58	70	63	61	72	64	66	69	61	64
Do not allow	32	24	32	25	22	29	26	24	30	29
Depends (not read)	5	4	4	11	5	6	5	6	7	4
No response	5	2	2	3	1	1	3	1	2	3
	$\chi^2 = 34.92$ $\phi = 0.15$					χ² =	1.47, n.s.	χ² =	8.80, n	.s.

Angus Reid Group	E	Education			Income				
	Less High Some than high school post- school graduate sec.			Less than \$20 000	\$20 000 to \$40 000	More than \$40 000			
Allow	56	59	71	60	65	70			
Do not allow	35	32	22	32	27	23			
Depends (not read)	6	6	5	4	5	6			
No response	3	2	2	3	2	1			
	$\chi^2 = 28.68$ $\phi = 0.14$			$\chi^2 = 10.3$	6, n.s.				

PND and Pregnancy Termination

In which of the following circumstances should pregnancy termination be allowed?

When the fetus is known to be handicapped to the point that the child will have to spend its life in a wheelchair

Angus Reid Group			Regio	n		Gen	der		Age		
	Atl.	Que.	Ont.	Prairies	ВС	M	F	18- 34	35- 54	55+	
Allow	29	55	38	35	47	42	42	37	43	48	
Do not allow	56	38	50	45	42	46	45	50	44	40	
Depends (not read)	10	6	10	14	8	10	9	11	9	8	
No response	4	1	2	6	3	2	4	2	4	3	
	$\chi^2 = 4$ $\varphi = 0.$					$\chi^2 = 0$).25, n.s.	$\chi^2 = 1$ $\phi = 0.$			

Angus Reid Group		Education		,	Income				
	Less than high school	High school graduate	Some post-sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000			
Allow	38	41	44	42	40	45			
Do not allow	49	47	44	46	47	43			
Depends (not read)	9	10	10	10	10	10			
No response	4	3	3	2	3	2			
	$\chi^2 = 3.68, r$	n.s.		$\chi^2 = 2.35$,	n.s.				

PND and Pregnancy Termination

In which of the following circumstances should pregnancy termination be allowed?

When the fetus is known to be handicapped to the degree that, once born, the person will never be able to live without constant care

Angus Reid Group			Regio	n		Ger	nder	Age		
	Atl.	Que.	Ont.	Prairies	вс	М	F	18- 34	35- 54	55+
Allow	37	70	48	45	61	52	55	54	54	54
Do not allow	42	23	38	35	28	34	31	34	32	32
Depends (not read)	15	5	12	13	7	10	10	11	9	11
No response	5	2	2	6	3	3	3	2	5	3
	$\chi^2 = 73.14$ $\phi = 0.22$				$\chi^2 =$	1.71, n.s.	$\chi^2 = 0.70$, n.s.			

Angus Reid Group		Education			Income	
	Less High Some than high school post-school graduate sec.		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000	
Allow	47	48	59	52	55	56
Do not allow	37	37	29	35	32	31
Depends (not read)	11	12	9	11	10	10
No response	5	3	3	2	3	3
	$\chi^2 = 19.39$ $\phi = 0.12$			$\chi^2 = 2.07$	n.s.	

PND and Pregnancy Termination

In which of the following circumstances should pregnancy termination be allowed?

When the sex of the fetus is not what the parents hoped for

Angus Reid Group		Region					nder		Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+	
Allow	2	5	5	3	4	5	4	3	6	4	
Do not allow	93	95	92	94	95	92	95	95	92	93	
Depends (not read)	3	1	1	1	0	2	0	1	1	1	
No response	2	0	1	2	1	1	1	1	1	2	
	$\chi^2 = 10.87$, n.s.					$\chi^2 = 8.21,$ n.s.		$\chi^2 = 5.94$, n.s.		s.	

Angus Reid Group		Education			Income	
	Less High Some than high school post-school graduate sec.		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000	
Allow	5	4	4	4	3	5
Do not allow	91	95	94	93	96	93
Depends (not read)	2	1	1	2	1	1
No response	2	1	1	2	0	1
	$\chi^2 = 4.45$, r	n.s.		$\chi^2 = 5.05$,	n.s.	

PND and Pregnancy Termination

The decision to have an abortion should be left up to the woman involved.*

Angus Reid Group			Regio	n		Ger	nder		Age	
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
1 Totally disagree	25	17	13	18	15	16	17	16	15	18
2	4	5	5	4	4	6	3	5	5	3
3	5	7	5	6	5	7	4	7	5	4
4	10	8	6	8	4	8	6	8	5	9
5	4	8	7	5	6	7	6	6	7	7
6	6	10	10	7	9	10	8	9	10	8
7 Totally agree	44	44	52	48	57	44	54	48	51	48
No response	3	1	1	3	1	2	1	1	2	2
	$\chi^2 =$	$\chi^2 = 17.74$, n.s.					8.46, n.s.	$\chi^2 =$	5.73, n	ı.s.

Angus Reid Group		Education			Income		
	Less High Some than high school post-school graduate sec.		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
1 Totally disagree	21	18	14	21	14	14	
2	3	4	5	3	5	6	
3	3	5	7	5	5	8	
4	9	8	6	11	7	6	
5	6	4	8	4	7	7	
6	7	8	10	6	10	10	
7 Totally agree	49	52	48	49	51	48	
No response	2	1	2	1	1	2	
	$\chi^2 = 5.31$,	n.s.		$\chi^2 = 11.94$, n.s.			

^{*} For the purpose of statistical analysis, responses of 1 to 3 were collapsed into one response category and responses of 5 to 7 were collapsed into one response category.

Expected Use of PND

If you or your partner were expecting a child, would you use prenatal diagnosis of the fetus (prompt: such as ultrasound or amniocentesis)?

Angus Reid Group		Region					Gender		Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+	
Yes	70	75	65	67	66	69	69	79	67	56	
No	22	18	25	22	23	23	21	15	24	32	
Depends (not read)	7	5	7	8	10	6	8	5	8	8	
No response	1	2	3	3	1	2	2	1	1	5	
	$\chi^2 = 1$	$\chi^2 = 14.71$, n.s.				$\chi^2 =$	1.89, n.s.	$\chi^2 = 0$ $\phi = 0$			

Angus Reid Group		Education			Income	
	Less than high school	than high school post-		Less than \$20 000	\$20 000 to \$40 000	More than \$40 000
Yes	61	67	73	69	68	71
No	30	24	18	23	23	20
Depends (not read)	6	7	7	5	7	8
No response	3	2	1	2	2	1
	$\chi^2 = 22.24$ $\phi = 0.12$			$\chi^2 = 4.83$,	n.s.	

Perceived Impact of Widespread PND Use

Do you agree or disagree with the following statement. Please use a scale of 1 to 7, where '1' means you totally disagree and '7' means you totally agree.*

The widespread use of these methods will make society more intolerant of disabled people because there will be fewer of them

Angus Reid Group			Regio	n		Ger	nder		Age	
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
1 Totally disagree	38	24	30	27	41	31	29	31	32	26
2	9	11	14	17	11	15	11	13	12	12
3	8	9	10	10	9	10	8	10	7	11
4	5	13	12	9	10	10	12	12	10	11
5	5	16	11	15	10	11	13	14	12	11
6	4	10	8	8	5	8	7	7	8	9
7 Totally agree	25	16	12	13	13	12	16	12	17	15
No response	6	2	4	2	0	2	3	1	2	6
	$\chi^2 = 25.34$ $\phi = 0.13$				χ² =	6.89, n.s.	$\chi^2 =$	3.12, n	.s.	

Angus Reid Group	E	Education			Income	
	Less than high school	High school graduate	Some post- sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000
1 Totally disagree	24	28	33	23	29	35
2	9	9	16	10	12	16
3	8	9	10	7	12	9
4	14	13	9	13	11	9
5	13	13	12	15	15	10
6	9	7	8	8	8	7
7 Totally agree	19	17	11	20	11	13
No response	5	4	1	4	3	1
,	$\chi^2 = 31.62$ $\phi = 0.15$			$\chi^2 = 26.63$ $\phi = 0.14$		

^{*} For the purpose of statistical analysis, responses of 1 to 3 were collapsed into one response category and responses of 5 to 7 were collapsed into one response category.

Research with Fetal Tissue to Treat Disease: Awareness

Are you aware of any research which is being done with the tissue from fetuses in order to treat disease in other people?

Angus Reid Group		Region					nder		Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+	
Yes, and disease(s) named	35	20	29	34	37	28	30	24	33	31	
Yes, but unable to name a disease	12	11	14	14	13	12	14	9	13	19	
No, not aware	52	68	57	50	50	58	56	66	53	49	
No response	1	1	0	1	0	1	0	1	0	1	
	$\chi^2 = 34.02$ $\phi = 0.15$					$\chi^2 =$	1.06, n.s.	$\chi^2 = 4$ $\phi = 0$	41.10		

Angus Reid Group		Education			Income	
	Less than high school	High school graduate	Some post-sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000
Yes, and disease(s) named	19	23	36	26	26	35
Yes, but unable to name a disease	14	10	14	11	14	13
No, not aware	66	67	49	62	60	52
No response	1	1	1	1	0	0
	$\chi^2 = 50.78$ $\phi = 0.18$			$\chi^2 = 15.53$ $\phi = 0.11$		

Origin and Use of Fetal Tissue

As you may know, research is being done on possible uses for fetal tissue. It may prove to be helpful in the treatment of such diseases as Alzheimer's or Parkinson's. The tissue is retrieved from aborted, miscarried and stillborn fetuses. Now, we would like to know your opinion about the origin of the fetal tissue which is being used. Do you think that ...?

Angus Reid Group			Regio	n		Gen	der		Age	
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
No fetal tissue should be used in any circumstances	9	11	11	9	6	8	12	9	9	12
It should be restricted to only tissue arising from natural miscarriages and stillborn fetuses	45	35	34	40	42	39	35	35	36	42
It should be permitted with all types of fetal tissue, including stillborn, miscarried and aborted fetuses	37	48	50	47	49	49	46	53	49	38
No response	9	7	5	4	3	4	7	3	5	8
	$\chi^2 = 14.18$, n.s.					1 ~	6.86, n.s.	$\chi^2 = \phi =$	17.95 0.11	5

Angus Reid Group	E	ducation			Income	
	Less than high school	High school graduate	Some post-sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000
No fetal tissue should be used in any circumstances	13	13	7	15	9	6
It should be restricted to only tissue arising from natural miscarriages and stillborn fetuses	38	40	36	34	38	39
It should be permitted with all types of fetal tissue, including stillborn, miscarried and aborted fetuses	39	43	53	43	49	51
No response	9	4	4	9	4	4
	$\chi^2 = 28.94$ $\phi = 0.14$			$\chi^2 = 22.46$ $\phi = 0.13$		

Circumstances in Which It Is Permissible to Use Fetal Tissue

In which of the following ways should it be permissible to use fetal tissue?

To treat fatal diseases such as Alzheimer's or Parkinson's

Angus Reid Group			Regio	n		Ge	nder		Age		
	Ati.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+	
Should be allowed	85	83	83	83	89	87	81	85	87	78	
Should not be allowed	10	14	14	11	8	10	14	11	10	16	
Depends (not read)	3	1	2	4	1	1	3	2	2	3	
No response	1	2	1	2	2	1	2	1	1	3	
	$\chi^2 = 1$	$\chi^2 = 14.13$, n.s.					11.57 .09	$\chi^2 = \frac{1}{2}$	10.34, r	า.ร.	

Angus Reid Group		Education			Income				
	Less than high school	High school graduate	Some post-sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000			
Should be allowed	77	80	89	77	86	88			
Should not be allowed	17	15	94	18	11	9			
Depends (not read)	3	3	2	3	2	2			
No response	3	2	1	2	1	1			
	$\chi^2 = 23.02$ $\phi = 0.13$			$\chi^2 = 20.38$ $\phi = 0.12$					

Circumstances in Which It Is Permissible to Use Fetal Tissue

In which of the following ways should it be permissible to use fetal tissue?

For medical research

Angus Reid Group			Regio	n		Ger	nder		Age	
	Atl.	Que.	Ont.	Prairies	ВС	M	F	18- 34	35- 54	55+
Should be allowed	73	78	77	75	80	79	75	78	78	73
Should not be allowed	17	17	17	14	14	14	18	14	15	19
Depends (not read)	7	4	6	9	5	6	6	7	6	4
No response	4	2	1	2	1	1	2	1	2	3
	$\chi^2 =$	$\chi^2 = 11.87$, n.s.					4.46, n.s.	$\chi^2 = 1$	7.09, n	.s.

Angus Reid Group	1	Education			income				
	Less than high school	High school graduate	Some post-sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000			
Should be allowed	69	75	81	69	79	82			
Should not be allowed	21	19	12	22	16	10			
Depends (not read)	7	5	6	7	4	7			
No response	3	1	1	2	1	1			
	$\chi^2 = 21.97$ $\phi = 0.12$			$\chi^2 = 28.27$ $\phi = 0.14$,				

Circumstances in Which It Is Permissible to Use Fetal Tissue

In which of the following ways should it be permissible to use fetal tissue?

For commercial purposes such as testing cosmetics and other products to see if they are safe for humans

Angus Reid Group			Regio	n		Ge	nder	Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
Should be allowed	16	22	16	18	20	20	17	21	18	16
Should not be allowed	77	74	79	76	79	75	79	75	78	79
Depends (not read)	5	2	4	3	1	4	2	4	2	2
No response	2	2	1	4	1	2	2	1	2	3
	$\chi^2 = 1$	$\chi^2 = 14.82$, n.s.						$\chi^2 = 0$	6.87, r	1.S.

Angus Reid Group		Education		Income				
	Less than high school	High school graduate	Some post-sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
Should be allowed	19	17	18	23	18	18		
Should not be allowed	76	79	77	73	78	77		
Depends (not read)	2	2	3	2	2	4		
No response	3	1	1	2	2	2		
	$\chi^2 = 2.95, r$	n.s.		$\chi^2 = 8.03$,	n.s.			

Expected Behaviour if Faced with Serious Disease Treatable with Fetal Tissue

Suppose you were suffering from a serious disease which would be treated by using fetal tissue. Would you undergo this treatment?

Angus Reid Group			Regio	n		Gei	nder	Age		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
Yes	69	75	73	71	70	77	68	77	75	62
No	16	13	12	13	13	11	16	11	11	19
Depends (not read)	10	5	9	10	10	7	9	7	9	9
No response	5	7	6	6	6	4	7	5	5	9
	$\chi^2 = 8.80$, n.s.					$\chi^2 = 13.34$ $\phi = 0.10$		$\chi^2 = 25.10$ $\phi = 0.13$		

Angus Reid Group		Education			Income	
	Less High Some than high school post-school graduate sec.			Less than \$20 000	\$20 000 to \$40 000	More than \$40 000
Yes	64	69	78	65	75	77
No	19	14	10	18	14	9
Depends (not read)	9	10	7	10	6	9
No response	8	7	4	6	6	4
	$\chi^2 = 24.63$ $\phi = 0.13$			$\chi^2 = 24.53$ $\phi = 0.14$	3	

Fetal Tissue to Treat Disease: Perceived Impacts

Now, here are some statements which people have made about the use of fetal tissue. Please tell me how you feel about each statement on a scale of 1 to 7, where '1' means you totally disagree and '7' means you totally agree.*

Using fetal tissue to treat disease will create a demand for terminated (aborted) fetuses and the number of terminations (abortions) in Canada will increase as a result

Angus Reid Group			Regio	n		Gei	nder		Age	
	Atl.	Que.	Ont.	Prairies	ВС	M	F	18- 34	35- 54	55+
1 Totally disagree	36	32	34	32	30	30	35	34	34	29
2	7	15	11	12	10	12	11	12	13	10
3	4	10	9	10	9	10	8	8	9	9
4	11	9	11	9	12	11	10	11	9	10
5	9	12	12	12	13	13	11	13	11	11
6	10	6	8	12	. 7	8	8	10	7	8
7 Totally agree	17	13	11	10	18	13	12	9	14	16
No response	7	3	4	3	2	3	4	3	2	7
	$\chi^2 = \epsilon$	6.87, n.s.				$\chi^2 = 0$	0.96, n.s.	$\chi^2 = 4$	4.21, n.	S.

Angus Reid Group		Education			Income		
	Less than high school	High school graduate	Some post-sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000	
1 Totally disagree	32	30	35	35	29	35	
2	9	9	14	9	13	13	
3	8	8	9	6	9	11	
4	10	11	10	12	11	8	
5	9	14	13	11	13	12	
6	8	7	9	6	10	8	
7 Totally agree	19	16	8	17	13	10	
No response	5	5	2	5	2	2	
	$\chi^2 = 11.08$,	n.s.		$\chi^2 = 11.99$, n.s.			

^{*} For the purpose of statistical analysis, responses of 1 to 3 were collapsed into one response category and responses of 5 to 7 were collapsed into one response category.

Fetal Tissue to Treat Disease: Perceived Impacts

The decision of whether or not to terminate a pregnancy can be kept separate from the use of the fetal tissue.*

Angus Reid Group	Region				Gei	nder	Age			
	Atl.	Que.	Ont.	Prairies	ВС	М	F	18- 34	35- 54	55+
1 Totally disagree	24	11	9	12	15	11	13	9	13	16
2	4	4	4	5	5	5	4	3	5	6
3	2	8	6	9	7	7	7	9	6	5
4	12	13	12	14	10	16	9	17	9	10
5	8	10	14	14	11	13	12	14	10	13
6	9	11	13	10	17	14	11	12	14	11
7 Totally agree	32	35	32	28	30	30	33	32	36	26
No response	8	7	8	7	5	5	10	4	6	14
	$\chi^2 = 12.74$, n.s.				$\chi^2 = \phi = 0$	13.06).10	$\chi^2 = 2$ $\phi = 0$			

Angus Reid Group	Е	ducation		Income				
	Less than high school	High school graduate	Some post-sec.	Less than \$20 000	\$20 000 to \$40 000	More than \$40 000		
1 Totally disagree	18	14	9	17	12	10		
2	5	4	4	5	4	5		
3	8	8	6	6	7	7		
4	14	13	11	13	15	11		
5	12	14	11	9	15	11		
6	7	10	16	12	11	14		
7 Totally agree	24	28	38	29	30	37		
No response	12	9	5	9	6	5		
	$\chi^2 = 37.76$ $\phi = 0.17$			$\chi^2 = 10.85$ $\phi = 0.09$				

^{*} For the purpose of statistical analysis, responses of 1 to 3 were collapsed into one response category and responses of 5 to 7 were collapsed into one response category.

Policy Issues

Deciding the Use of Reproductive Technologies

I am going to read you a list of people and organizations that could be involved in deciding on the use of these technologies. For each, I would like you to tell me if you think they should be involved or not — use a 7-point scale where '7' means they should be very involved and '1' means you feel they should not be involved at all.

Group or organization	Not involved (1-3)	Neutral (4)	Involved (5-7)	No response
Federal government	46	13	40	1
Provincial government	48	13	37	1
Churches and religious groups	63	10	26	1
Doctors	6	5	88	1
Medical research scientists	10	8	80	1
Academics (university professors)	33	15	50	2
General public	44	14	41	2
Lawyers	65	13	21	1
Judges	56	13	30	1
People who have had personal experience with the issues	23	15	61	2
Women's groups	36	15	47	1

Policy Issues

Reproductive Technologies — A Women's Issue?

Some people have said that the issues surrounding reproductive technologies are basically women's issues. Others believe that these are issues which affect both men and women equally. Still others say that these technologies involve both men and women, but that special consideration must be given to women's views in these areas. Which of these three views is closest to your own? Is this a ...?

Angus Reid Group	Region					Ge	nder	Age			
	Atl.	Que.	Ont.	Prairies	ВС	M	F	18- 34	35- 54	55+	
Women's issue	7	5	4	3	2	3	5	2	5	6	
An issue that affects both men and women equally	47	44	40	39	40	42	41	44	41	39	
An issue that affects men and women equally, but women's views should be given special consideration	44	50	55	56	57	53	53	53	55	51	
No response	3	1	1	2	1	2	1	0	0	4	
	$\chi^2 = 11.16$, n.s.					$\chi^2 =$	2.92, n.s.	$\chi^2 = \frac{1}{2}$	11.44, ı	n.s.	

Angus Reid Group		Education		Income				
	Less than high school	High school graduate	school post-		\$20 000 to \$40 000	More than \$40 000		
Women's issue	7	5	2	6	6	2		
An issue that affects both men and women equally	47	46	37	42	46	37		
An issue that affects men and women equally, but women's views should be given special								
consideration	43	48	60	50	48	60		
No response	3	1	1	2	0	1		
	$\chi^2 = 38.61$ $\phi = 0.16$			$\chi^2 = 25.23$ $\phi = 0.14$				

Notes

This paper presents a subset of findings from a larger questionnaire. A complete copy of the survey is available at the National Archives.

- 1. Angus Reid Group Inc., "Reproductive Technologies Qualitative Research: Summary of Observations," initial research conducted for the Royal Commission on New Reproductive Technologies (Ottawa: RCNRT, 1990).
- 2. Ibid.
- 3. The Angus Reid Group did not provide the Commission with the calculated response rate for this survey. However, based on results from the other national surveys conducted for the Commission, it is estimated that the response rate for this survey was probably between 30% and 40%. Such a low response rate is typical of national surveys of this nature and represents a potentially important limitation to the research. Furthermore, as with other national surveys, whether a systematic participant selection bias was introduced is unknown. This being said, it should also be pointed out that the introduction to the survey was very general and did not mention that the focus of the survey would be reproductive technologies. Specifically, the following preamble introduced the survey to potential respondents:

"Hello. This is ______ from the Angus Reid Group, a national public opinion and marketing research firm. Today we are talking to people about some important issues and problems facing Canadians, and we would appreciate about 30 minutes of your time to ask your opinion."

The vast majority of potential respondents for this type of survey are "lost" during this introductory period. In the absence of evidence to the contrary, there is little reason to think that a systematic bias that severely skewed the results was introduced. It is recommended, however, that the results for similar issues across Commission surveys be compared to help determine the reliability of results.

- 4. See J. Cohen, Statistical Power Analysis for the Behavioral Sciences, 2d ed. (Hillsdale: Lawrence Erlbaum Associates, 1988).
- 5. See H.T. Reynolds, *The Analysis of Cross-Classifications* (New York: Free Press, 1977).
- 6. See P.A. Marchbanks et al., "Research on Infertility: Definition Makes a Difference," American Journal of Epidemiology 130 (1989): 259-67. For the most recent estimates of infertility among Canadian couples, see C.S. Dulberg and T. Stephens, "The Prevalence of Infertility in Canada, 1991-1992: Analysis of Three National Surveys," in The Prevalence of Infertility in Canada, vol. 6 of the research studies of the Royal Commission on New Reproductive Technologies (Ottawa: Minister of Supply and Services Canada, 1993). For the most recent national estimates of infertility for the United States, see W.D. Mosher and W.F. Pratt, Fecundity and Infertility in the United States, 1965-88, Advance Data from Vital and Health Statistics of the National Center for Health Statistics, No. 192 (Hyattsville: U.S. Department of Health and Human Services, 1990).
- 7. To some, the finding that 43% of respondents reported that they had a family member or close friend with a fertility problem initially may seem high, particularly if it is assumed that the experience of infertility is a rare event (e.g., affecting less

than 10% of couples in Canada). However, the rarity of infertility and the fact that nearly half of those surveyed reported that someone close to them has had a fertility problem are easily explained using the Bayesian probability theory and are not irreconcilable findings.

In order to calculate the probability that a person will know at least one family member or close friend with a fertility problem, it is necessary to estimate: (1) the probability of a person having a fertility problem; and (2) the number of family members and close friends an individual has. In order to generate an example, the following assumptions have been made: (1) the probability of a person having a fertility problem is estimated as p=0.07; and (2) the number of family members and close friends a person has is estimated (conservatively) at 10. The probability that at least one of these 10 individuals will have a fertility problem is equal to: "1 – the probability that none of the 10 has a fertility problem" or "1 – $0.93^{10} = 0.516$." If these assumptions are generally appropriate across a large sample of individuals, the percentage who report they have a family member or close friend with a fertility problem will be approximately 52%.

This is, of course, a simplistic example because there are numerous "real life" conditions that will influence each individual's probability of knowing someone with a fertility problem (e.g., some people will be close to more or less than 10 people; some will be clustered in social networks where the probability of experiencing infertility is higher or lower than 7%, etc.). As an example, however, it does demonstrate how the occurrence of an unusual event can, nevertheless, result in a comparatively large number of individuals having contact with someone who has experienced that event.

- 8. T.R. Balakrishnan and R. Fernando, "Infertility Among Canadians: An Analysis of Data from the Canadian Fertility Survey (1984) and General Social Survey (1990)," in *The Prevalence of Infertility in Canada*, vol. 6 of the research studies of the Royal Commission on New Reproductive Technologies (Ottawa: Minister of Supply and Services Canada, 1993); J. Menken, "Age and Fertility: How Late Can You Wait?" *Demography* 22 (1985): 469-83; J. Menken, J. Trussell, and U. Larsen, "Age and Infertility," *Science* 233 (1986): 1389-94.
- 9. See Marchbanks et al., "Research on Infertility"; see also E. Greenhall and M. Vessey, "The Prevalence of Subfertility: A Review of the Current Confusion and a Report of Two New Studies," *Fertility and Sterility* 54 (1990): 978-83.
- 10. See Mosher and Pratt, Fecundity and Infertility in the United States.
- 11. An interesting finding for this study is that the percentage who felt common law couples should not be eligible for IVF services (26%) is similar to the percentage of respondents who "agreed" with the statement: "It is wrong for an unmarried man or an unmarried woman to have sexual relations." On a 1 (totally disagree) to 7 (totally agree) scale, 27% "agreed" with this statement (i.e., ratings of 5 to 7). It is likely that those who were against premarital sex were also the ones who were unwilling to endorse use of IVF services by common law couples.
- 12. T. Stephens and J. McLean, "Survey of Canadian Fertility Programs," in *Treatment of Infertility: Current Practices and Psychosocial Implications*, vol. 10 of the research studies of the Royal Commission on New Reproductive Technologies (Ottawa: Minister of Supply and Services Canada, 1993).
- 13. When reviewing these results, it should be kept in mind that respondents were asked about whether individuals should be eligible for IVF; they were not asked about their personal acceptance of this procedure. It is quite possible that some

would allow the provision of IVF services for others even though they personally disagree with the use of this type of reproductive technology. In general, personal acceptance of IVF was quite high when measured in other national surveys conducted for the Commission; see Decima Research, "Social Values and Attitudes of Canadians Toward New Reproductive Technologies," in Social Values and Attitudes Surrounding New Reproductive Technologies, vol. 2 of the research studies of the Royal Commission on New Reproductive Technologies (Ottawa: Minister of Supply and Services Canada, 1993); M. de Groh, "Reproductive Technologies, Adoption, and Issues on the Cost of Health Care: Summary of Canada Health Monitor Results," in Social Values and Attitudes Surrounding New Reproductive Technologies, vol. 2 of the research studies of the Royal Commission on New Reproductive Technologies (Ottawa: Minister of Supply and Services Canada, 1993). However, levels of personal acceptance were not as high as 94% — the percentage in this survey who felt that married couples should be eligible for IVF services.

14. Canada Health Monitor (CHM) and Decima, both national opinion surveys conducted for the Commission, included questions to assess respondents' acceptance of surrogacy. In both of these studies, details related to the process undergone by the surrogate were made explicit to respondents. In Decima, it would appear that the more detailed and "personalized" the issue of surrogacy was made for respondents, the lower the percentage who supported surrogacy. For example, less than one-third of Decima respondents supported the use of a surrogate by an imaginary couple (Robert and Mika; surrogacy in this case was described in detail). However, in the same study when surrogacy was not described, 45% of respondents indicated, "a person who is infertile who wants to should be able to consider using a surrogate to have a baby"; see Decima Research, "Social Values and Attitudes." Commission questions on surrogacy included in the CHM also produced lower support for surrogacy than seen in the Angus Reid Group survey. In the CHM study, where a surrogate arrangement was explained in detail, approximately 40% of all respondents approved of the use of surrogacy (see de Groh, "Reproductive Technologies, Adoption, and Issues"). The percentages who would support the use of surrogacy in both of these other studies were not as high as those seen in the current study.

15. See A. Fine, "Human Fetal Tissue Research: Origins, State of the Art, Future Applications, and Implications," in *Background and Current Practice of Fetal Tissue and Embryo Research in Canada*, vol. 15 of the research studies of the Royal Commission on New Reproductive Technologies (Ottawa: Minister of Supply and Services Canada, 1993); and M.A. Mullen, "The Use of Human Embryos and Fetal Tissues: A Research Architecture," in *Background and Current Practice of Fetal Tissue and Embryo Research in Canada*, vol. 15 of the research studies of the Royal Commission on New Reproductive Technologies (Ottawa: Minister of Supply and Services Canada, 1993).

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Reproductive Technologies, Adoption, and Issues on the Cost of Health Care: Summary of Canada Health Monitor Results

Margaret de Groh



Executive Summary

The Canada Health Monitor (CHM) is a national semi-annual telephone survey whose main purpose is to track the attitudes and behaviour of Canadians in a number of health-related areas. The Commission subscribed to the CHM during 1991, the year two CHM surveys, #6 and #7, were devoted to "Health Issues Affecting Women."

Questions relevant to the Commission's mandate were integrated into the CHM surveys and the results analyzed based on the sociodemographic variables of gender, age, education, income, and region. The surveys explored respondents' attitudes toward: the use of various reproductive technologies; adoption (who should be allowed to adopt, delays associated with the adoption process); and health care and the Canadian health care system, including commitment to the five principles of health care, federal/provincial responsibilities for different aspects of health care, performance of government in the provision of good health care, spending levels, problems within the system, alternative payment mechanisms, as well as cost and whether doctors should decide when to withhold treatment of the terminally ill.

This paper was completed for the Royal Commission on New Reproductive Technologies in July 1993.

Attitudes Toward Reproductive Technologies

The highest support for any reproductive technology was for *in vitro* fertilization (IVF), with approximately 80% of all respondents surveyed stating they approved of this procedure when used to assist a couple having difficulty conceiving a baby. A majority of respondents (approximately 60%) also said they approved of the use of donor insemination under these circumstances.

With respect to the third practice explored to assist a couple having difficulty conceiving a baby — paid surrogacy — a majority of respondents expressed their disapproval. However, approximately 40% of respondents approved of the use of surrogacy and there was no indication that variations in the genetic link status of intended social parents had an effect on approval or disapproval rates.

Few striking differences across sociodemographic variables were observed for any of the reproductive technology methods explored. There was a consistent finding that those 65 years of age or over were more likely to disapprove of a method, regardless of what it was. This is not a particularly surprising finding and probably reflects the more traditional attitudes of this oldest population group. What seems more significant was that other age groups, particularly those under the age of 55, consistently showed no meaningful differences in the percentage who approved of the different procedures. The only other sociodemographic difference of particular interest was the finding that men were more likely to approve of the use of paid surrogacy arrangements compared to women. Though the differences should be interpreted as a suggestive trend, the result was observed across surveys and surrogacy scenarios.

Cost and Availability/Accessibility of New Reproductive Technologies

When it came to who should pay for the use of reproductive technologies, attitudes were not uniform. In assessing these results, it should be borne in mind that the majority of respondents already had children and therefore would be unlikely to wish to use reproductive technologies, whereas they did not know whether they would need other health services. This may have affected their views on who should pay. Nearly half of all respondents stated that their province and the couple using reproductive technologies should share the costs (and cost sharing was interpreted quite literally by a majority of these individuals). However, one-third of all respondents felt that the couple should pay all costs. The option endorsed by the fewest number of respondents was to have provincial health insurance plans pay all costs to help a couple have a baby, which received endorsement from only about 1 in 10 of those surveyed. The question of who should pay for the use of reproductive technologies by a couple attempting to have a second child produced similar results, although the percentage who felt that the province should bear none of the costs did increase (and the percentage who felt that the province should pay some of the costs decreased).

There were few stable differences across sociodemographic variables, with the only clear difference being associated with age. Though there were no age differences with respect to the number endorsing full provincial coverage (less than 10% across all age groups endorsed this payment option), younger respondents were more likely to state that province and couple should share costs, while older respondents (particularly those aged 55 and over) were more likely to state that the couple should pay all costs. (Older respondents were also more likely to have children.) There was also a tendency for respondents 65 and older to volunteer that no one should pay because such methods should not be pursued. This trend was substantiated by the availability/accessibility question asked subsequently, which provided respondents with the opportunity to state that reproductive technologies should "not be available at all in the province." Those aged 65 or over were more likely to endorse this statement than those in other age groups, although, overall, less than 10% of all respondents endorsed this option.

Further results with respect to the delivery of reproductive technology services indicated that approximately half of all respondents favoured provision of such services through a few specialized clinics, and about 4 out of 10 respondents favoured the availability of reproductive technology services across their province. Other than the age difference reviewed above, education was the only other sociodemographic variable producing suggestive differences. Those in the highest educated group tended to endorse the provision of services through specialized clinics instead of favouring the provision of services across their province.

Adoption

The survey showed almost universal support for adoption as an alternative for infertile couples. Over 90% of respondents also supported allowing prospective parents to adopt a child of a different colour or race. A strong majority of those surveyed supported single parent adoption. particularly for single women, but only a minority supported the idea of homosexual couples as prospective adoptive parents.

With respect to perceived delays associated with the adoption process, one-quarter to one-third of respondents did not feel knowledgeable enough to respond to questions on this issue, which is not surprising given the complexities currently associated with adoption in Canada. Those who did respond to questioning seemed generally aware that adopting a Canadian-born infant would probably involve longer delays than adopting a toddler or a special needs child. About one-half of those surveyed also expected that international adoption of an infant would probably take two years or less.

When it came to what respondents would do if faced with delays of five to ten years to adopt a Canadian-born infant, less than 20% of those 21 to 45 seemed willing to face this delay. The most popular alternative strategies were to pursue international adoption (32%) or to adopt a Canadian-born child of a different race (24%). Very few (7%) felt that their most likely behaviour would be to adopt a special needs child.

Health Care Issues

Respondents showed a high level of support for the five principles of the Canadian health care system. More than half (55%) supported the notion of withholding federal government funds from those provinces that fail to meet these five principles. With regard to who should have primary responsibility for certain aspects of the health care system, half said the federal government should set health care standards while the other half said the provinces or a shared arrangement would be better. Just over half said that both governments should share enforcement of health care standards. A higher percentage of those in Quebec, compared to other provinces, endorsed provincial control in both these cases. When it came to the delivery of health care services, however, almost 70% of all respondents favoured a provincial or shared arrangement and there were no differences observed across regions.

The CHM surveys also revealed that the cost of health care is seen as an important issue facing governments. Questions included in the surveys addressed the perceived adequacy of current health care budgets, as well as issues concerning whether certain problems exist that may be contributing to higher health care costs.

With respect to the adequacy of health care budgets, approximately one-half of those surveyed felt that the amount currently spent on health care was "about right" and that their provincial government was doing a good job of controlling health care costs. Most of the remaining respondents felt that provincial health care budgets were either "too little" (23%) or "too much" (16%). However, when it came to unnecessary pressures facing the health care system, a majority of respondents expressed strong concern over misuse of the system. More than 80% felt that many Canadians engage in the unnecessary use of the health care system and 70% felt that doctors often prescribe unnecessary medications. A majority of those surveyed (69%) also felt that hospitals are over-utilized and that home care alternatives are under-utilized.

This apparent pessimism and concern with the misuse of the system were also reflected in the types of methods respondents felt were most acceptable for raising money to cover health care costs. Despite being reminded that all Canadians are currently entitled to health care services free of charge, one-half of those surveyed still approved of the idea of applying extra charges to those who use more than a certain amount of health services. Nearly 4 in 10 approved of the idea of hospitals introducing user fees, but there was strong disapproval for raising taxes to cover health care costs or allowing doctors to extra bill.

Introduction

At various stages during the mandate of the Royal Commission on New Reproductive Technologies, several survey research initiatives were undertaken to help assess public opinion on issues related to the availability, development, and alternatives to new reproductive technologies

(NRTs). The main public opinion surveys undertaken by the Commission were national in scope. Though these national surveys varied somewhat in their focus and approach, all were designed to provide a broad understanding of public opinion on different issues related to a particular technology or practice.

This report is designed to provide a summary of the results generated from the Commission's involvement with the Canada Health Monitor (CHM). A detailed review of the other main national surveys conducted for the Commission — the Angus Reid Survey (May 1990) and the Decima Survey (June 1992) — is reported elsewhere in this volume.

Canada Health Monitor

The Canada Health Monitor is a national semi-annual telephone survey conducted by Price Waterhouse in association with the CHM's founder, Dr. Earl Berger. The first CHM was conducted in November/December 1988 and is supported by individuals, associations, and federal/provincial departments that become yearly subscribers. A subscriber to the CHM is provided with a descriptive summary of results and detailed data tables for the two surveys conducted during the subscription year. Highlight reports are also provided that not only summarize results for a survey, but also informally compare these results to previous surveys in which respondents were asked identical questions.

Each CHM survey includes responses from over 2 700 men and women 15 years of age and over. This large sample size not only allows the generation of highly reliable national estimates of attitudes and behaviour, but also allows for exploratory analysis of key sociodemographic variables

(e.g., regional results) with sufficiently large subsample sizes.

One of the main purposes of the CHM is to track the attitudes and behaviour of Canadians in a number of health-related areas (e.g., tobacco and alcohol use). In addition, each CHM survey has a "special theme" and subscribers are invited to confer with CHM consultants on the inclusion of questions on issues related to the special theme topic. Specific questions related to the special theme of a survey are included in the CHM based on consensus among the subscribers. Subscribers are also provided with the opportunity to purchase questions to be included in a survey. The results of these "proprietary questions" become the property of the subscriber who purchased them and are not released to other subscribers or the general public.

The Commission subscribed to the CHM during 1991, the year both surveys (CHM #6 and CHM #7) were devoted to "Health Issues Affecting Women." Becoming a CHM subscriber was considered a particularly cost-effective method for the collection of nationally representative data on attitudes toward NRTs and related issues for a number of reasons. First, the initial start-up costs associated with the conduct of a large national survey were defrayed somewhat by involvement with an established ongoing

survey. As well, the ongoing costs of conducting the survey were shared among subscribers, as opposed to being shouldered exclusively by one association or federal/provincial department. Further, as a subscriber, the Commission became involved in the selection and drafting of questions of interest to a majority of subscribers on health issues affecting women. This allowed issues of interest to the Commission to be included in the survey as special theme questions (as opposed to the Commission having solely purchased the questions). Finally, as a subscriber, the Commission was afforded the opportunity to purchase questions on a confidential basis. This method of data collection (referred to as "piggybacking") required the Commission to buy only specific questions that were added to the main survey, while at the same time taking advantage of the presence of established CHM sociodemographic variables (i.e., cross-tabulations of proprietary questions with sociodemographic variables were provided to the Commission).

Objectives of This Report

The primary objective of this report is to provide a descriptive summary of key results of interest to the Commission from CHM surveys #6 and #7. As mentioned previously, the CHM does summarize some results generated during a particular survey for its subscribers. However, the results of proprietary questions are not reported. Furthermore, statistically based exploratory analyses of trends observed for sociodemographic variables are not reported by CHM. This study reviewed, statistically analyzed, and then summarized the results for key sociodemographic variables (e.g., gender, age, education, income, and region).

Questions included in CHM #6 and/or CHM #7 addressing the following issues will be the main focus of this report:

- attitudes toward the use of various reproductive technologies;
- attitudes toward adoption (who should be allowed to adopt) and perceptions of the delays associated with the adoption process;
- various attitudes and perceptions of issues related to health care and the Canadian health system, including:
 - commitment to the five principles of health care;
 - federal/provincial responsibilities for different aspects of health care;
 - performance of government in the provision of good health care:
 - spending levels, problems with the system, and alternative methods of paying for health care; as well as
 - cost and whether doctors should decide when to withhold treatment of the terminally ill.

Methodological Issues

Questionnaire Development

The CHM questionnaire was originally designed by Dr. Earl Berger in consultation with questionnaire design experts within and outside Price Waterhouse. Proprietary questions included in the surveys on behalf of the Commission were designed by staff members and Commission experts. Proprietary questions were reviewed with CHM consultants, as well as being reviewed by Commissioners. Commission staff also worked closely with CHM consultants in the development of some special theme questions included in CHM #6 and CHM #7.

All CHM survey instruments are computerized using computerassisted telephone interviewing (CATI) technology. This allows sophisticated questionnaires with highly complex skip logic to be developed. Once the instrument has been imputed, it is pretested with a small number of respondents and then finalized. All respondents are interviewed in the official language of their choice.

Sample Selection, Sample Size, and Weighting

Information provided by CHM detailing the methodology for both surveys is provided in Appendix 1. What follows in this section is a brief summary of the method used for the selection of CHM samples, a review of the sample size for CHM #6 and CHM #7, and the weighting procedures applied to the data.

Sample Selection

CHM employs a multistage stratified sampling technique in which the sample selected is stratified by region and community size. Provincial quotas proportional to the Canadian population are established first. Then each community in Canada is assigned to one of five community size strata and quotas are again established for each community size stratum within each province (Montreal, Toronto, and Vancouver are treated separately in terms of community size strata). This sample design was used for both CHM #6 and CHM #7.

The actual sample frame for CHM studies is developed using a modified version of the Waksberg-Mitofsky procedure. This represents a random digit dialling technique that effectively generates a random set of telephone numbers. Unlike telephone listings, this method will include unlisted numbers and numbers that have been listed after directory publications.

To further help ensure that each sample is accurately representative of the general population, potential interviewees are randomly selected in households with more than one eligible respondent. The Troldahl-Carter screening technique is used to help ensure that the sample is accurately representative with respect to age and gender. All members of the household 15 years of age or over are potentially eligible to participate in the survey, and once an individual has been randomly selected using the

Troldahl-Carter technique, no other person within the household may be substituted.

Sample Size

Between August and November 1991, 2 723 Canadian residents 15 years of age or older were interviewed for CHM #6. CHM #7 was conducted between December 1991 and February 1992 and involved 2 725 Canadian residents 15 years of age or older. Appendix 1 provides further details on the number of respondents interviewed in each province (by community size) as well as the response rate for CHM #7.2

Weighting

Although provincial and community size quotas are established as part of the CHM sample selection methodology, some weighting of data is still necessary under these circumstances because quotas are either "overshot" (i.e., oversampled) or not reached during the time frame of the survey. These circumstances lead to the introduction of very minor data weights.

However, the CHM also provides subscribers with the opportunity to oversample in a particular province in order to ensure that a representative subsample is available for statistical analysis. During CHM #6 and CHM #7 an oversampling of Alberta was added to the proportional quota for this province. Therefore, the data were weighted to adjust for the overrepresentation of Alberta in the final sample. As indicated in Appendix 1, the weights in both surveys were still quite minor, with most falling between 0.60 and 1.40.

Analysis of Results

While providing descriptive summaries of the overall results for questions asked in the two surveys was the primary focus of this report, additional statistical analyses were also conducted where appropriate. For example, some questions asked in CHM #6 were replicated in CHM #7. This allowed for the statistical comparison of results across surveys to determine whether some attitudes of interest to the Commission appeared stable and statistically reliable. Extensive exploratory analyses of trends for selected sociodemographic variables were also conducted.

Unfortunately, only a subset of raw data from CHM #6 was provided to the Commission in the form of an SPSS system file and no system file data were provided from CHM #7. Nevertheless, the summary tables provided by CHM for the two surveys did allow for the reconstruction of data sets adequate enough to enable non-parametric statistical analyses to proceed using SPSS/PC+. Dependence on the summary tables provided by CHM, however, did limit the types of exploratory analyses pursued for this report.³ Finally, please note that all numbers reported in tables are percentages and that these numbers may not sum to exactly 100% due to rounding error.

Replication of Results Across Surveys

As indicated previously, in a few limited instances specific questions were asked in CHM #6 and then replicated in CHM #7. This actually represents an important advantage of piggybacking questions on an

ongoing survey like CHM, since it allowed for a relatively cost-effective way of assessing the reliability of observed results.

A two-step analysis approach was adopted to determine whether the pattern of responding observed for replicated questions appeared reliable. First, a chi-square statistic was calculated as an "omnibus" test that compared the results for a specific question across the two surveys. Under these circumstances the chi-square test is a good indicator of whether the pattern of results observed (e.g., pattern of attitudes) is independent of the survey in which they were observed. However, the magnitude, and therefore the statistical significance, of the chi-square test is strongly affected by the overall sample size. Since the sample sizes for both CHM #6 and CHM #7 were quite large, it was possible for quite trivial differences across the two surveys to emerge as statistically significant. Therefore, the second step applied to these data was the calculation of the phi coefficient, a measure of association that helps to determine whether observed differences should be considered meaningful or trivial. As a general rule of thumb, phi coefficients may be interpreted as correlation coefficients with convention suggesting that a value of 0.10 represents a "small" and 0.30 a "medium" effect size (these values are essentially arbitrary and statisticians often encourage researchers to use their own judgment when interpreting the magnitude of phi coefficients in particular and measures of association in general).4

All tables in this report present total sample (or subsample) percentages and include the percentage of respondents who either refused to answer a question or said they "didn't know" (unless otherwise indicated, these two categories have been collapsed into one "no response" category). The written text also reports only total sample (or subsample) percentages. This format was chosen because of its consistency with the way results are presented in CHM detailed tables. However, all statistical analyses are based on the subset of respondents who provided a "valid" answer to a particular question (i.e., all analyses based on valid percentages; those who provided "no response" were excluded). This does not introduce difficulties unless the "no response" rates across comparative subsamples differ substantially. Therefore, result summaries include mention of potentially meaningful variations in "no response" rates when these arise.

Exploratory Analysis of Sociodemographic Variables: Statistical Guidelines
For each question reviewed, the pattern of results for the following sociodemographic variables was explored:

- gender;
- age;
- education;
- · income; and
- region.

A breakdown of the categories for these variables and the weighted subsample sizes for each category are presented in Appendix 2.

In preparing this report, the emphasis has been on the exploratory nature of this investigation. This caution is underscored here, in part because of the relatively large number of analyses conducted. In addition, emphasizing the exploratory nature of the investigation allowed for the focus on potential trends and the use of statistical testing procedures as guidelines (rather than firm criteria, see below). Furthermore, some of these variables, such as education and income, are known to be interrelated (i.e., these variables are often important related components in defining socioeconomic status). This could not be taken into consideration here except in an interpretive sense (since analyses were restricted to those cross-tabulated tables provided by CHM).

With respect to interpreting the relationship of sociodemographic variables to CHM questions, specific guidelines were used. First, the chi-square test was used as an omnibus indicator of whether cross-tabulated variables were independent. However, the magnitude of a phi coefficient as a measure of association was also considered when determining whether a statistically significant chi-square also suggested a meaningful association between two variables. For the most part, a phi coefficient of at least 0.20 was considered meaningful.

In some circumstances, however, results associated with lower phi coefficient values were also considered, particularly if review of the data and the magnitude of standardized adjusted residuals associated with particular cells in cross-tabulated tables suggested an important trend. Standardized adjusted residuals are calculated by SPSS and their magnitude is based on the difference between observed and expected frequencies for a particular cell. These residuals may be interpreted in the same way as z-scores and help to assess why the assumption of independence for a particular analysis was rejected. In general, the standardized adjusted residuals were used to help more accurately interpret how sociodemographic variables were associated with attitude variables.

Review of sociodemographic results has focussed on summarizing the results through descriptions that provide a general understanding of the differences observed. For detailed breakdowns for sociodemographic variables by question, see Appendix 3. Further, as mentioned earlier, all percentages are based on the total number of respondents within each sociodemographic category. All statistical analyses, however, are based on the number of respondents within each sociodemographic category who provided a valid answer to a particular question (i.e., valid percentages — those categorized as "no response" were excluded). Finally, results are summarized for a few questions in which open-ended or multiple responses were possible. Only descriptive summaries are reported under these circumstances.

Results and Discussion

Attitudes Toward Reproductive Technologies

Both CHM #6 and CHM #7 included a series of questions addressing whether respondents approved or disapproved of various reproductive technologies or methods designed to assist in the birth of a child biologically linked to one or both partners. These questions were introduced to respondents with the following preamble:

I have just a few questions about reproductive technology to ask you. There are various kinds of reproductive technology which can help a couple who are having difficulty conceiving a baby. Please tell me if you approve or disapprove of each of the following kinds of reproductive technology ...

Results for the four questions presented to respondents are summarized below.

Donor Insemination

To gauge support for the use of donor insemination by a man and woman having difficulty conceiving a child, respondents were asked whether they approved or disapproved of the following scenario:

The man is not fertile and the woman is made pregnant with sperm donated by another man.

Table 1 summarizes the results observed in both CHM #6 and CHM #7. As can be seen, results across the two surveys were highly similar with just over 60% of all respondents in both surveys indicating they would approve of the use of donor insemination under these circumstances. Also, as might be expected from the results in Table 1, the pattern of responses across the two surveys failed to differ statistically ($\chi^2 = 3.17$, n.s.).

With respect to sociodemographic variables, no meaningful gender or regional differences were observed in either survey. However, age did show a statistically significant and meaningful association with approval for donor insemination in both CHM #6 (ϕ = 0.19) and CHM #7 (ϕ = 0.21). In both studies, the oldest age group (i.e., those aged 65+) showed a much lower approval rate for the use of donor insemination than those age groups under 65; the approval rate of those 55-64 also tended to be lower than that of the younger age groups. In CHM #6, 53% of 55- to 64-year-olds and 44% of those aged 65+ said they approved of the use of donor insemination. The percentage who approved among the younger age groups in CHM #6 varied between 67% and 74%. In CHM #7, 50% of those aged 55 to 64 and 38% of those aged 65+ approved of the use of donor insemination, compared to approval rates between 61% and 74% among the younger age groups.

Disapprove

No response

Table 1. Approval for Use of Donor Insemination		
	CHM #6 (%)	CHM #7 (%)
Donor insemination		
Approve	. 65	63

29

7

32

6

Two other observations are worth noting with respect to the relationship of age to approval for the use of donor insemination. First, the percentage failing to provide an opinion with respect to donor insemination was much higher among those 65 or over. Twelve percent of these seniors in CHM #6 and 14% of these seniors in CHM #7 failed to provide an opinion on this issue. In addition, 14% of those aged 55 to 64 reported "no response" in CHM #6. These levels of "no response" were much higher than the "no response" rates observed among younger age groups, which ranged from 2% to 6%. Second, contrary to expectations, age did not show an unambiguous linear relationship with respect to approval of donor insemination — in both studies 15- to 24-year-olds exhibited about the

same level or less support for donor insemination than the other age

groups, except, of course, those 55 or over (see Appendix 3).

Results also indicated that education showed a marginal though unstable relationship to attitudes toward donor insemination. Though the chi-square values associated with education were statistically significant in both studies, the strength of the association between approval/disapproval of donor insemination and education was much stronger in CHM #7 (ϕ = 0.19) than in CHM #6 (ϕ = 0.12). In CHM #7, the percentage who approved the use of donor insemination increased steadily across educational groups, from a low of 50% approval from those with less than a high school education to a high of 73% among those with at least some university education. Approval rates increased as education increased in CHM #6 as well; however, the low level of association observed suggests that differences among the educational groups in this study were not particularly meaningful (approval ranged from 58% to 72%).

Finally, household income also demonstrated a relationship with attitudes toward donor insemination and this relationship was stable across the two surveys (CHM #6: ϕ = 0.18; CHM #7: ϕ = 0.20). In both studies, approval of the use of donor insemination steadily increased as income increased. In CHM #6, approval ranged from a low of 53% among those with household incomes of less than \$20 000 to a high of 81% among

those with household incomes of more than \$75 000. In CHM #7, approval for donor insemination across income categories ranged from a low of 50% among those with household incomes less than \$20 000 to a high of 79% among those with household incomes greater than \$75 000.

In Vitro Fertilization

Support for the use of *in vitro* fertilization (IVF) to assist a couple having difficulty conceiving a child was also addressed in both surveys. Specifically, respondents were asked whether they approved or disapproved of the following scenario:

The woman has difficulty conceiving, and an egg is surgically removed from her, fertilized by the man's sperm, then put back into her so she can have the baby.

Table 2 summarizes the pattern of results observed in CHM #6 and CHM #7. As can be seen, use of IVF to assist a couple to have a child received strong support in both surveys. Over 80% of respondents in both CHM #6 and CHM #7 approved of the use of this type of assisted conception. No meaningful difference in the pattern of responses across the two surveys was observed for this question ($\chi^2 = 10.54$; $\phi = 0.04$).

	CHM #6 (%)	CHM #7 (%)
VF		
Approve	84	81
Disapprove	12	15
No response	4	4

No gender or regional differences were observed with respect to approval/disapproval for the use of IVF. As well, no meaningful education or income differences in approval of the use of IVF were observed in either study (though there were weak trends across both surveys for approval to increase as education/income increased; see Appendix 3). However, attitudes toward IVF were clearly associated with age in CHM #7 (ϕ = 0.22) and exhibited an age association trend in CHM #6 (ϕ = 0.17). In both surveys far fewer seniors (i.e., those 65 or over) than expected said they approved of IVF. In CHM #6, 69% of those 65 or over approved of the use of IVF as presented, compared to 75% of those 55 to 64 and 84% to 92% of those in all other age groups. In CHM #7, only 60% of those 65 or over approved of the use of IVF, compared to 74% of those 55 to 64 and 76% to 90% of those in all other age groups. As with donor insemination, the

percentage of those 65 or over with "no response" to this question was twice as high as the "no response" rate observed in most other age groups.

Surrogacy (Preconception Arrangements)

Although not a reproductive technology in the same sense as IVF, issues related to surrogacy represent an important part of the Commission's mandate. One of the more complex issues arising from surrogacy, when used in combination with procedures such as artificial insemination and IVF, is the genetic links that may be established with one or with both of the intended social parents.

Respondents were asked to consider two different surrogacy scenarios. The first scenario described a paid surrogacy arrangement that establishes a genetic link between the child and the intended social father. Specifically, respondents were asked whether they approved or disapproved of the following scenario:

The woman is not fertile and the man donates his sperm to another woman who is paid to have the baby for the couple.

The second scenario described a paid surrogacy arrangement that, through the use of IVF, establishes a genetic link between the child and both intended social parents. Specifically, respondents were asked whether they approved or disapproved of the following scenario:

The woman has difficulty conceiving, and an egg is surgically removed from her, fertilized by the man's sperm, and put into another woman who is paid to have the baby for the couple.

The results from CHM #6 and CHM #7 for these two surrogacy scenarios are presented in Table 3. For the scenario on paid surrogacy using the intended social father's sperm, a high degree of consistency across the two surveys was found ($\chi^2 = 2.89$, n.s.). For the scenario on paid surrogacy using IVF (i.e., establishing a genetic link with both intended social parents), comparison across surveys indicated some variability in the response patterns observed. However, though statistically significant ($\chi^2 = 20.29$; p < 0.05), this variability was not found to be particularly meaningful (ϕ = 0.06).

Comparison across the two scenarios themselves suggested little difference in respondents' perception of these two circumstances. In both cases, a majority of respondents disapproved of the surrogate arrangement described, though a strong minority (about 4 out of 10 respondents surveyed) expressed their approval of the use of surrogacy to assist a couple to have a child.

Few differences were observed across sociodemographic variables for either of the surrogacy scenarios. In particular, no meaningful education or income differences were observed, nor were there any regional differences in the approval rate for either type of surrogacy. Response patterns also failed to meaningfully differ across age categories for either surrogacy scenario ($\phi \le 0.15$ in all cases), though those 65 or over did stand out with

Table 3. Approval for Use of Surrogacy (Preconception Arrangements)

	CHM #6 (%)	CHM #7 (%)
Paid surrogacy using man's sperm		
Approve	41	38
Disapprove	53	57
No response	6	6
Paid surrogacy using man's sperm and woman's egg (with IVF)		
Approve	39	34
Disapprove	54	61
No response	6	6

comparatively few expressing approval for the use of surrogacy (see Appendix 3).

With respect to gender differences, a suggested trend for more men than women to approve of surrogacy was observed for both scenarios (despite low phi coefficients, which ranged between 0.09 and 0.14). Nevertheless, the magnitude of adjusted residuals and the observed differences in the percentage of women and men who expressed their approval suggested a trend worth mentioning. For both surrogacy scenarios, Table 4 reports the percentage of men and women in CHM #6 and CHM #7 who approved of the use of the surrogacy arrangements. As can be seen, the percentage of men who approved of the use of surrogacy was consistently higher than the percentage of women who approved and this held across both surveys and both surrogacy scenarios.

Attitudes Toward Reproductive Technologies: Sociodemographic Differences

Few striking differences across sociodemographic variables were observed for any of the reproductive technology methods explored. There was, however, a consistent finding that those 65+ were more likely to disapprove of a method, regardless of what it was. This is not a particularly surprising finding and probably reflects the more traditional attitudes of this oldest population group. What seems more significant was that other age groups, particularly those under the age of 55, consistently showed no meaningful differences in the percentage who approved of the various

procedures. The only other sociodemographic difference of particular interest was the finding that men were more likely to approve of the use of paid surrogacy arrangements compared to women. Though the differences should be interpreted as a suggestive trend, this finding was consistent across surveys and surrogate arrangements considered (see Table 4).

Surrogacy (Preconception Arrangements)	to the Use	of
	CHM #6 (%	CHM #7 (%

	approve)	approve)
Paid surrogacy using man's sperm		
Men	48	42
Women	34	33
Paid surrogacy using man's sperm and woman's egg (with IVF)		
Men	45	38
Women	34	30

Cost and Availability/Accessibility of New Reproductive Technologies

After questions addressing approval/disapproval of various reproductive technologies were presented to respondents, issues relating to the cost and payment for such technologies were considered. Questions addressed mainly who should pay for reproductive technologies and focussed on three different alternatives: full payment through the health care system; full payment by those using the technologies (i.e., couples); or a shared payment plan between province and couples. The impact of the presence of a first child in the home on who should pay was also explored. Finally, the availability/accessibility of services within the provinces was addressed. This issue has been included here primarily because it is quite possible that it was linked to the issue of cost in respondents' minds, despite attempts to separate the issue of cost from availability. assessing all these results, it should be borne in mind that the majority of respondents already had children and therefore would be unlikely to wish to use reproductive technologies, whereas they did not know whether they would need other health services. This may have affected their views on who should pay.

Who Should Pay for Reproductive Technologies

Cost was addressed immediately after the various reproductive technologies were reviewed (i.e., approval/disapproval ratings made), and the following preamble introduced the question:

Some of these reproductive technologies are expensive and may not work. There are various ways to pay for these reproductive technologies. Which one do you agree with ...

The three alternatives read to respondents are presented in Table 5, along with the results from CHM #6 and CHM #7. As can be seen, the results across the two surveys were highly consistent for this cost question $(\gamma^2 = 4.34, \text{ n.s.})$.

Slightly more than half of the respondents in both surveys considered the shared cost option to be the best of the three alternatives provided. However, a substantial minority of about one-third of respondents in both surveys felt that the couple using reproductive technologies should pay all the costs. Less than 10% of respondents in both surveys felt that provincial health insurance should pay all costs involved. Finally, few respondents (about 2% in each survey) volunteered that no one should pay because reproductive technologies should not be provided at all; however, it should be kept in mind that this alternative was not formally presented to respondents as a response option.

Table 5. Payment Options for Use of Reproductive Technologies

	CHM #6 (%)	CHM #7 (%)
Method of payment		
The provincial health insurance plan should pay all costs to help a couple have a baby	7	8
The couple should pay all costs	32	33
The province and the couple should share the costs	56	53
No response*	6	5

^{*} Two percent of respondents in both surveys volunteered: No one pays/Should not do it.

This cost question produced no gender differences, nor did differences emerge across education or income categories. No stable regional differences were observed, although in CHM #7 a higher than expected

number of Quebec respondents indicated that the province should pay all of the costs for reproductive technologies. Fourteen percent of Quebec respondents in CHM #7 chose this option, compared to between 4% and 8% of respondents in other regions. This still represents a minority of respondents and this trend was not seen in CHM #6 (in this survey, less than 10% of respondents in all regions indicated that the province should pay all costs).

Age was the only sociodemographic variable that produced meaningful differences in the endorsement of various cost options (CHM #6: ϕ = 0.21; CHM #7: ϕ = 0.18). The pattern of results observed for various age

categories was similar across the two surveys.

Generally, the different age groups did not differ in the percentage who said that the province should pay all costs (10% or less in each age group indicated that the province should cover all costs). Age group differences, therefore, were limited to differences in the percentage who indicated the couple should pay all costs versus the costs should be shared between couple and province. Younger respondents, particularly those under 35, were more likely to suggest that the cost for reproductive technologies should be shared (approximately 63%) and less likely to say that the couple should pay all costs (approximately 25%), compared to those in other age groups. This may be because more of these younger respondents had not yet had children and felt they may in future be in a position of needing to use such technologies. Conversely, respondents 55 years of age or older were less likely to indicate that costs should be shared (approximately 40%) and more likely to indicate that the couple should pay all costs (approximately 42%), compared to the younger respondents. This pattern was observed across both surveys.

It should be noted that there was a tendency for older respondents, particularly those 65 and older, to volunteer that no one should pay because reproductive technologies should not be offered. For example, in CHM #7, 7% of those 65+ volunteered that the technologies should not be offered, compared to between 1% and 4% of those in other age groups. In CHM #6, the age differences on this issue were not as apparent; 5% of those 65+, 4% of those 55 to 64, and 1% or less of those in younger age groups volunteered that reproductive technologies should not be offered.

As indicated previously, the method of payment selected by slightly more than half of the respondents in both surveys was the option of shared costs between the province and the individual couple. A follow-up question was asked of those who selected this option to try to better determine what these respondents considered an appropriate division of costs. Table 6 presents the results for both surveys, as well as the three response options read to respondents. As with the previous question, the results across the two surveys were highly similar ($\chi^2 = 3.83$, n.s.).

It is clear from the results in Table 6 that a majority of those asked this question interpreted cost sharing quite literally and felt that expenses should be divided equally between province and couple. However, about 1

in 5 of those who felt province and couple should share the cost nevertheless felt the majority of the cost should be assumed by the individual couple. Only about 1 in 10 of those who thought costs should be shared then indicated that the province should assume the majority of the cost of reproductive technologies.

Table 6. Alternative Shared Cost Options for Province and Couple Using Reproductive Technologies*

	CHM #6 (%)	CHM #7 (%)
Level of payment		
The province should pay most of the costs	11	12
The couple should pay most of the costs	20	22
The couple and the province should share the cost equally	66	62
No response	2	4

^{*} Subsample: those who indicated that province and couple should share costs; see Table 5.

Few differences were observed in either survey with respect to sociodemographic variables of interest. In particular, no differences were observed by age, region, education, or income. There were also no stable gender differences, although there was a trend observed in CHM #7 (ϕ = 0.14), with more men than women indicating that the province should assume the majority of the cost for reproductive technologies (17% versus 8%, respectively). However, as indicated, this finding was not stable — this gender difference was not found in CHM #6.

Covering Costs of Reproductive Technologies for a Second Child

Both CHM surveys addressed the issue of whether provincial health insurance programs should cover any of the costs associated with the use of reproductive technologies by a couple who already have their own child. Results for both surveys are presented in Table 7 and, as can be seen, the response options for this question were different from those used in previous cost questions. For this question, the emphasis was clearly on the overall role of the province.

The results summarized in Table 7 do reflect some minor variability across the two surveys, though this variability was not found to be particularly meaningful ($\chi^2 = 31.43$; $\phi = 0.08$). Clearly, respondents in both

surveys were split between provincial health insurance paying none of the costs and the province paying at least some of the costs a couple would incur to produce a second child through the use of reproductive technologies.

Table 7. Provincial Insurance Payment Options When Couple Uses Reproductive Technologies to Have a Second Child

	CHM #6 (%)	CHM #7 (%)
Provincial payment		
All of the cost	7	5
Some of the cost	42	38
None of the cost	46	54
No response	5	3

There were few stable differences with respect to sociodemographic variables. Both studies failed to produce gender differences or differences across education and income variables. No stable regional differences were observed, although CHM #7 results ($\phi = 0.15$) did suggest that Quebec respondents were more likely to indicate that the province should pay all the costs under these circumstances (10%), compared to other regions (2% to 4%). Respondents in Quebec were also less likely to indicate that the province should pay none of the costs for a second child using reproductive technologies (47%), compared to respondents in other regions (55% to 58%). However, these results suggested a trend that was not observed in CHM #6 (no regional differences were observed in this survey).

Finally, unstable age differences were observed across the two CHM surveys. Specifically, age differences with respect to provincial monetary support to have a second child using reproductive technologies were relatively strong in CHM #6 (ϕ = 0.21), but produced only a very weak associative trend in CHM #7 (ϕ = 0.14).

In both studies, the percentage within each age group who indicated that the province should pay all costs was highly similar to total sample results (see Table 7). However, in both studies, those 65 and older were much more likely than younger age groups to state the province should pay none of the costs to have a second child and much less likely than younger age groups to state that the province should pay some of the costs to have a second child. For the youngest age groups (particularly those 15 to 24 and 25 to 34), the pattern was reversed. For example, in CHM #6, 60% of those 65 and older said the province should pay none of the costs,

compared to only 35% of 15- to 24-year-olds (and 40% of 25- to 34-year-olds). Furthermore, only 22% of those 65 and older indicated that the province should pay some of the costs, compared to 58% of 15- to 24-year-olds (and 50% of 25- to 34-year-olds). A similar pattern was suggested in CHM #7, though the differences across age groups were not as extreme and the strength of the association was marginal at best (see Appendix 3).

Availability/Accessibility of Reproductive Technologies

The last question included in CHM #6 and CHM #7 that was related to reproductive technologies addressed the issue of provincial responsibility in making such technologies available/accessible. Specifically, respondents were asked:

Apart from who pays, what should your provincial government do about making reproductive technologies available?

Table 8 summarizes the results for the two surveys and lists the response options provided to respondents. Though the wording of response options focussed on availability, it should be noted that both availability and accessibility issues appear to be addressed with this question. For example, whether or not reproductive technologies should be available at all is explicitly addressed via the third response option presented to respondents (see Table 8). Whether or not the issue of accessibility was taken into consideration by respondents is not clear (e.g., cost may have been an overriding concern, given that previous questioning focussed on this issue).

	CHM #6 (%)	CHM #7 (%)
Should the technologies		
Be available across the province	41	35
Be available only in a few specialized clinics	47	52
Not be available at all in the province	7	9
No response	5	4

With respect to the actual results for the surveys, as can be seen, only minor differences in the response pattern across surveys were observed ($\chi^2=26.48$; $\phi=0.07$). In both surveys, less than 10% of respondents stated that reproductive technologies should not be available at all in their province. Most respondents felt reproductive technologies should be

available, although respondents were nearly split with respect to how such services should be delivered. Although nearly half of respondents endorsed the availability of reproductive technologies through a few specialized clinics, nearly 4 in 10 respondents felt that reproductive technologies should be available across their province.

No gender or regional differences were observed. Education, however, did produce suggestive trends in both surveys (CHM #6: φ = 0.19; CHM #7: φ = 0.19). In both surveys the most highly educated group (i.e., those with at least some university education) was more likely to endorse the provision of specialized clinics (and less likely to select the other two options), compared to the least educated group (i.e., those with less than high school education). The least educated group was less likely to endorse the provision of specialized clinics and more likely to state that reproductive technologies should not be available at all, compared to other groups, particularly the most highly educated (see Appendix 3 for actual percentages). The results for household income groups reflected those observed for education; however, the results were not as stable (CHM #6: φ = 0.18; CHM #7: φ = 0.15).

As might be expected, given previous results, age differences were observed in both surveys (CHM #6: φ = 0.25; CHM #7: φ = 0.25), although stable differences tended to be restricted to whether or not reproductive technologies should be available at all. There was a steady increase across age groups in the number who felt technologies should not be available, although by far the biggest increase was for those aged 65 and older. In CHM #6, 19% of those aged 65 and older indicated that reproductive technologies should not be available, compared to between 3% and 10% of other age groups. In CHM #7, 23% of those aged 65 and older indicated the technologies should not be available, compared to between 3% and 13% of all other age groups.

Adoption Issues

Adoption represents an important alternative to the use of reproductive technologies for couples who wish to have children, but who have been unable to conceive naturally. As a consequence, issues related to adoption were of interest to the Commission and a number of key issues were addressed in CHM #6 (the issues were not addressed in CHM #7).

Respondents in CHM #6 were informed that they would be asked about adopting children, and a series of questions was presented, addressing:

- who should be allowed to adopt;
- perceived wait (delays) when adopting children with various characteristics; and
- respondents' expected strategy if faced with delays of five to ten years to adopt a Canadian-born infant (asked only of respondents 21 to 45 years old).

The results for the questions addressing these different issues are summarized below.

Who Should Be Allowed to Adopt

Respondents were presented with a variety of scenarios describing the characteristics of a prospective adoptive parent/prospective adoptive parents and asked whether such a parent or parents should be allowed to adopt. As will be seen, some of the characteristics explored go beyond those typically associated with infertile couples.

Infertility and Adoption

To determine the percentage of respondents who agreed with an infertile couple adopting a child, the following scenario was read to respondents:

If a couple discovered they could not conceive a child together but wanted one and decided to adopt a child, would you ...

The four response options read to respondents were: strongly agree;

somewhat agree; somewhat disagree; and strongly disagree.

For the infertile couple wishing to adopt, agreement that such a couple should be considered was almost universal. Ninety-seven percent of respondents agreed at least "somewhat" that an infertile couple should be allowed to adopt, with the vast majority (90%) "strongly" agreeing that an infertile couple should be allowed to adopt. Region, gender, age, education, and income all failed to produce any meaningful variations for this question.

Influence of Single Parent Status

Respondents were asked whether they agreed or disagreed with a single woman adopting and whether they agreed or disagreed with a single man adopting. The results for these two scenarios are presented in Table 9.

A majority of respondents in both cases said they agreed at least "somewhat" with an individual of single parent status adopting a child, though support was slightly stronger for a single woman adopting than a single man. Seventy-five percent agreed at least "somewhat" with a single woman adopting a child and 65% agreed at least "somewhat" that a single man should be allowed to adopt. The level of support for single parents adopting was lower than for the infertile couple, especially if one considers the "strength" of respondents' agreement. In the case of an infertile couple, a strong majority of all respondents "strongly" agreed with allowing adoption, which was not the case for either scenario involving single individuals.

A review of sociodemographic variables indicated that there were no region or gender differences for either scenario. However, agreement with a single individual adopting was related to age, and this relationship was particularly strong with respect to a single man adopting a child (single woman: $\phi = 0.23$; single man: $\phi = 0.35$). In both cases age tended to

demonstrate a linear relationship, with the percentage who agreed that these individuals should be allowed to adopt decreasing across age groups. For example, for a single woman, the percentage who "strongly" agreed that she should be allowed to adopt ranged from a high of 59% among 15- to 24-year-olds to a low of 34% among those aged 65 and older (the percentage across age groups who agreed at least "somewhat" ranged from 87% to 57%). For a single man, the percentage who "strongly" agreed that he should be allowed to adopt ranged from a high of 50% among 15- to 24-year-olds to a low of 19% among those 65+ (the percentage across age groups who agreed at least "somewhat" ranged from 81% to 35%).

Table 9. Influence of Single Parent Status on Who Should Be Allowed to Adopt

A single woman should be allowed to adopt a child (%)	A single man should be allowed to adopt a child (%)
48	39
27	26
9	13
13	20
3	2
	should be allowed to adopt a child (%) 48 27 9 13

One suggestive finding with respect to sociodemographic variables was the tendency (i.e., trend) for education level to be related to level of agreement with a single man adopting a child (ϕ = 0.18), but not with a single woman adopting (ϕ = 0.11). Results indicated that a higher than expected percentage of those with at least some university education agreed at least "somewhat" with a single man adopting (76%). In contrast, a much lower than expected percentage of those with less than a high school education agreed with a single man adopting (55%). Those with high school or at least some community college education fell between these two extremes (65% and 68%, respectively, agreed at least "somewhat" with a single man adopting). Interestingly, agreement with a single man or a single woman adopting failed to show any relationship to household income level.

Alternative Lifestyle Couples

Respondents were asked whether two lesbian women should be allowed to adopt and whether two gay men should be allowed to adopt a child. The results for these two scenarios are presented in Table 10.

Clearly, only a minority of respondents agreed "strongly" or "somewhat" with such couples adopting a child. Thirty-five percent of all respondents agreed at least "somewhat" with two lesbian women adopting and 31% agreed at least "somewhat" with two gay men adopting a child. Approximately half of all respondents in both cases "strongly" disagreed with allowing such couples to adopt a child. Further, unlike results for a single woman and a single man, the results for two lesbian women and two gay men were virtually the same. This suggests that the gender of the prospective parents had little influence on perceived suitability in the latter cases, with the alternative lifestyle issue dominating.

No region or gender differences were observed, and there were also no differences across household income groups. However, the relationship of education level to support for these alternative lifestyle couples adopting exhibited a weak trend in both cases (two lesbian women: $\phi = 0.15$; two gay men: $\phi = 0.16$). Once again, the differences tended to be between the two extreme educational groups.

For two lesbian women, 29% of respondents with less than high school education agreed at least "somewhat" with allowing them to adopt, compared to 45% of those with some university education. Fifty-five percent of respondents with less than high school education "strongly" disagreed with allowing two lesbian women to adopt, compared to 38% of those with some university education (51% of high school graduates and 47% of respondents with some community college education "strongly" disagreed).

The pattern observed across education groups when two gay men were considered was very much the same as the pattern for two lesbian women. Twenty-four percent of those with less than high school education agreed at least "somewhat" with two gay men adopting. Nearly twice as many respondents with at least some university education (41%) agreed at

Table 10.	Influence of	Alternative	Lifestyles on	Who Should Be
Allowed 1	o Adopt			

	Two lesbian women should be allowed to adopt a child (%)	Two gay men should be allowed to adopt a child (%)
Strongly agree	17	15
Somewhat agree	18	16
Somewhat disagree	11	11
Strongly disagree	48	53
No response	5	5

least "somewhat" with two gay men adopting (30% of high school graduates and 31% of respondents with some community college education agreed at least "somewhat"). At the other extreme, 61% of respondents with less than high school education "strongly" disagreed with allowing two gay men to adopt, compared to 42% of those with at least some university education. Fifty-six percent of high school graduates and 53% of respondents with some community college education "strongly" disagreed with two gay men adopting.

Unlike education, where the strength of the phi coefficient merely suggested a trend, the remaining sociodemographic variable, age, showed a comparatively strong relationship to agreement with allowing alternative lifestyle couples to adopt (two lesbian women: $\phi = 0.27$; two gay men: $\phi = 0.27$). For both scenarios, the percentage who agreed steadily decreased across age groups and disagreement with allowing adoption, particularly "strong" disagreement, steadily increased across age groups.

For a lesbian couple, the percentage who agreed at least "somewhat" that they should be allowed to adopt ranged from 50% among 15- to 24-year-olds to only 16% among those aged 65+. "Strong" disagreement with two lesbian women adopting ranged from a low of 35% among 15- to 24-year-olds to a high of 65% among those aged 65+. For a gay male couple, the results were very similar. The percentage who agreed at least "somewhat" that they should be allowed to adopt ranged from 45% among 15- to 24-year-olds to 11% among those aged 65+. "Strong" disagreement with two gay men adopting ranged from 40% among 15- to 24-year-olds to 73% among those aged 65 and older.

Adopting Child of Different Race

Respondents were asked whether a couple should be allowed to adopt a child of a different colour or race. Agreement among respondents was strong, with 93% indicating that they agreed "strongly" or "somewhat" (80% "strongly" agreed). Only 5% disagreed "strongly" or "somewhat" with a couple adopting a child of a different race and only 2% failed to provide an opinion on this scenario.

The only sociodemographic variable that demonstrated any relationship to this scenario was age, and only a weak trend was observed (ϕ = 0.17). The only age group that demonstrated any meaningful variation was respondents 65 years old or older. Those 65+ were less likely to "strongly" agree that a couple should be allowed to adopt a child of a different race (69%, compared to 78% to 87% across other age groups). Those 65+ were also more likely to "strongly" disagree with a couple adopting a child of a different race (6%, compared to 1% to 3% across other age groups).

Perceived Wait (Delay) to Adopt

An issue that can have a strong impact on a couple's decision to try to adopt is the wait or delay involved before actually receiving a child. CHM #6 addressed the issue of how long respondents perceived a Canadian couple would have to wait to adopt a child. The perceived wait associated

with four different "types" of children was explored. The four types of children considered are listed in Table 11; the different defining characteristics of these children are ones often considered to impact on the length of waits. The perceived length of a wait provided by respondents was then categorized by CHM #6 into the four categories listed in the table (no categories were read). No other details were provided to respondents. In particular, respondents were not asked explicitly to provide perceived delay estimates for the Canadian public adoption system (as opposed to perceived delays for adopting privately in Canada). This should be kept in mind when reviewing results.

Before reviewing the actual length of perceived waits for various children, it is important to note that the level of "no response" for these questions was quite high. Between one-quarter and one-third of all respondents said that they did not know how long a Canadian couple would have to wait to adopt these various children. For the remaining respondents, it is clear that the longest perceived wait tended to be associated with adopting a Canadian-born infant, followed by adopting a Canadian-born toddler. Forty-two percent of all respondents perceived a wait of three years or longer for a Canadian-born infant, although nearly as many (36%) suggested that the wait for a Canadian-born infant would be two years or less. For a Canadian-born toddler, 29% perceived a wait of three years or longer, although slightly more (44%) felt the wait would probably be two years or less.

Table 11. Perceived Wait (Delays) When Adopting Various Children

	Wait (delays)				
	< 1 year (%)	1-2 yrs (%)	3-4 yrs (%)	5-10 yrs (%)	No response (%)
A Canadian-born infant	15	21	18	24	22
A Canadian-born toddler, 2 to 4 years old	20	24	19	10	27
A Canadian-born, school-age child who has special needs because they are disabled physically or mentally	36	19	8	5	32
An infant born in another country	31	24	9	5	32

The waits perceived to be associated with adopting a special needs child or a child from a different country, on average, were shorter. In both cases, less than 15% of all respondents perceived delays of three years or longer to adopt these children. In fact, a majority of all respondents in both cases estimated that the wait would be two years or less, with approximately one-third of all respondents perceiving the wait to be less than one year.

A number of interesting differences in the length of perceived waits were observed across different sociodemographic variables. For example, significantly more women than men perceived longer delays when adopting a Canadian-born infant (ϕ = 0.28) and a Canadian-born toddler (ϕ = 0.23). Fifty-two percent of all women surveyed estimated that the wait for a Canadian-born infant would be three years or longer, compared to only 30% of the men surveyed. For adopting a Canadian-born toddler, 36% of the women surveyed perceived a wait of three years or more; only 20% of the men surveyed felt that the wait for a Canadian-born toddler would be this long. However, women and men did not differ with respect to perceived waits associated with a special needs child or a child from a different country. The percentage of women and men who failed to provide estimates was quite similar across all four types of children considered.

Some regional differences were also observed, although the results were more difficult to interpret because of differences in the "don't know" (i.e., "no response") rates among regions. Except for estimates associated with adopting a child from another country, Quebec respondents were consistently more likely to state "don't know" when asked to estimate waiting periods. There was also a tendency, among respondents who gave estimates, for Quebec respondents to provide longer estimates for both a Canadian-born toddler and a child with special needs. However, because of the higher "don't know" rate for Quebec on these two questions, the total percentage of Quebec respondents who perceived waits of three years or longer was similar to other regions.

Only for estimates of the wait for an infant from another country did Quebec have not only similar "don't know" rates as other regions, but also longer perceived waiting periods overall than other regions ($\phi = 0.32$). Twenty-five percent of all Quebec respondents, compared to between 6% and 16% of those in other regions, perceived waits of three years or more for a foreign-born infant. Twelve percent of Quebec respondents, compared to between 2% and 4% of those in other regions, felt that the wait for a foreign-born infant would be between five and ten years.

With respect to age, there were few differences across age groups in the perceived delays associated with adopting any of the types of children reviewed. The only suggested trend was for the youngest age group (15- to 24-year-olds) to perceive shorter delays than other age groups for a Canadian-born infant (ϕ = 0.18) and a Canadian-born toddler (ϕ = 0.15). Twenty-six percent of those 15 to 24 years old, compared to between 11% and 16% of those in other age groups, perceived a wait of less than one

year for a Canadian-born infant. For a Canadian-born toddler, 31% of those 15 to 24 years old, compared to between 13% and 22% of other age groups, perceived a wait of less than one year. Finally, for all four types of children considered, there was a steady increase across age groups in the percentage who stated "don't know" when asked to estimate wait periods. Most striking was that approximately 50% of those aged 65+ failed to provide estimates. Finally, for the two remaining sociodemographic variables, education and income, no differences were observed.

Expected Strategy When Facing Delays

A subsample of respondents in the survey was asked a follow-up question designed to gauge their expected behaviour if they wanted to adopt a Canadian infant but discovered that they would be faced with a wait of five to ten years. Only respondents between 21 and 45 years old were asked this question. The possible options read to respondents are presented in Table 12, as well as the percentage of the subsample who selected each option (i.e., the "most likely" behaviour under the circumstances).

The most popular option selected was to "adopt a baby from another country" (32%), followed by "adopt a Canadian-born child of a different race" (24%). Interestingly, 17% stated that they would probably wait the five to ten years necessary to adopt a Canadian-born infant. Only 7% felt that their most likely behaviour would be to adopt a special needs child, and 8% volunteered that they simply would not adopt.

Table 12. Expected Behaviour if Facing a Delay of Five to Ten Years to Adopt a Canadian Infant*

	Option selected (%)
Adopt a baby from another country	. 32
Adopt a Canadian-born school-age child of the same race as you but disabled physically or mentally	7
Adopt a Canadian-born child of a different race	24
Wait five to ten years to adopt a Canadian infant	17
Volunteered: not adopt	8
No response	12

^{*} Subsample: Only respondents between 21 and 45 years of age were asked this question.

There were virtually no differences across any of the sociodemographic variables. The only suggested differences observed were across education groups and differences were marginal at best (ϕ = 0.18). In fact, the only result that stood out was that those with at least some university education were less likely than other education groups to be willing to wait five to ten years to adopt a Canadian-born infant (12%, compared to 17% to 22% across other education groups). This result, however, was merely suggestive.

Adoption Issues: Attitudes of the Public Versus Those of Service Providers

Adoption has traditionally been considered an appropriate response for infertile couples who do not wish to remain childless. This perception was clearly supported by the results from the CHM #6 survey in which an infertile couple received almost universal agreement with their decision to adopt. The survey, however, moved beyond this traditional case to explore the impact of less traditional characteristics of adoptive parents. The impact of these less traditional characteristics of adoptive parents on the decision-making process of adoption service providers was also explored in a recent national survey on adoption in Canada. The opinions of the general public and the reported emphasis service providers place on the less traditional characteristics of adoptive parents considered in the survey are compared below.

From the CHM survey, it would appear that the vast majority of respondents (over 90%) agreed with the idea of prospective parents adopting a child of a different colour or race. However, 30% of service providers expressed "reservations" about placing an infant with parents of a different race. A majority of respondents also agreed with the notion of a single parent adopting, particularly a single woman. By contrast, nearly half of service providers said they had reservations about placing an infant with a single parent. The only characteristic of a prospective parent that seemed to produce uniform attitudes across the public and service providers was homosexuality. Only a minority of CHM respondents agreed with the idea of these alternative lifestyle couples adopting and clearly half of those surveyed strongly disagreed. Most service providers indicated that they had serious reservations about placing an infant with alternative lifestyle prospective parents (with 32% of those surveyed indicating that under no circumstances would they place an infant with a homosexual parent).

With respect to prospective parents of a different race and single parents, it is admittedly difficult to gauge exactly what impact the reservations of service providers translate into. However, their review of the results did lead the authors of the national adoption survey to conclude that:

... there are a number of formal and informal policies operating in practice that can restrict access to adoption for prospective adoptive parents. Homosexuals, single parents, and those over 40 would have

considerable difficulty adopting an infant in either a public or a private adoption. $\!\!\!^{7}$

The fact that "parents of a different race" was not mentioned suggests that restriction on this basis has become less and less common (suggesting that policy shows some consistency with public attitudes). However, there are indications that the evaluation of single parents (particularly single women) as unsuitable simply because they are single may be a policy that is lagging behind public attitude. Finally, neither the public nor the adoption system seems to have much tolerance for those living alternative lifestyles and the desire of some to raise children.

Canada's Health Care System and Related Issues

Both CHM #6 and CHM #7 included a number of questions addressing a variety of issues related to health care in general, and the Canadian health care system in particular. This section reviews the results from both surveys. The types of issues considered in this section include:

- respondents' attitudes toward the five established principles associated with the Canadian health care system;
- respondents' perceptions of the level of government that should have primary responsibility for setting and enforcing health care standards and the delivery of health care services;
- respondents' global perceptions concerning the capabilities of the federal and provincial governments in ensuring good health care for all:
- respondents' attitudes toward the adequacy of provincial spending allocations for health care;
- perceived problems facing the health care system that may contribute to the overall costs of health care;
- respondents' acceptance of various methods of raising money to assist in the payment of health care costs; and
- respondents' attitudes toward the elimination of certain treatment/services for the terminally ill (to help curb health care costs).

A summary of the results for each of these general sections is provided below along with a review of important differences across sociodemographic variables. An overall summary of key results is also provided at the end of this section.

Five Principles of the Canadian Health Care System

CHM #6 introduced a number of questions designed to determine the importance of five established principles related to the Canadian health care system. One of the questions directly asked respondents about the importance of the five principles:

The Canadian health care system is based on five principles developed some years ago. How important do you think it is to keep each of these five principles?

On a four-point scale ranging from "very important" to "not at all important," respondents were asked to rate the importance of the following five principles:

- universality;
- accessibility;
- portability;
- · comprehensiveness; and
- public administration.

The vast majority of respondents indicated that all five of the principles were "very important." The percentage of respondents indicating these principles were "very important" ranged from a high of 93% for the principle of universality to a comparative low of 76% for the principle of public administration. Even for public administration, however, an additional 15% of the total sample felt this principle was "somewhat important." For any one of the principles, less than 5% of respondents indicated that it was of little or no importance. No meaningful variability was observed for any of the sociodemographic variables considered in this study.

The following supplementary question was also asked of all CHM #6 respondents:

In your opinion, should there be national principles of this kind for health care, or should each province have its own principles?

The majority of respondents (62%) felt that there should be national principles for health care. Despite near universal commitment among respondents to the five established principles for the Canadian health care system, a minority (33%) felt that each province should have its own principles.

Regional differences were observed (ϕ = 0.32) with only 38% of Quebec respondents opting for national principles, compared to between 68% and 73% of respondents in the other regions. A trend toward differences across educational groups was also observed (ϕ = 0.14), with about half (54%) of those with less than a high school education supporting the notion of national principles, compared to 73% of those with at least some university education. No other differences on sociodemographic variables were observed.

Finally, the notion of withholding federal government funds from those provinces that fail to meet the five principles outlined above was also investigated with respondents. Specifically, respondents were asked whether they "strongly support," "somewhat support," "somewhat oppose,"

or "strongly oppose" the idea of withholding federal government funds under these circumstances.

Over half of all respondents (55%) stated they either "strongly" or "somewhat" supported the withholding of federal funds from provinces that fail to meet the five health care principles. Thirty-seven percent were "somewhat" or "strongly" opposed to this practice and 9% failed to provide an opinion.

There were few differences on sociodemographic variables, although there was a non-linear trend toward differences across age categories (ϕ = 0.17). Specifically, there was a tendency for those in the middle age groups (i.e., 35 to 44 years old; 45 to 54 years old) to be supportive of the idea of withholding federal funds, compared to those in the younger or older age groups. About 60% of those in each of the two middle age groups "strongly" or "somewhat" supported the idea of withholding funds, compared to between 46% and 55% of those in the younger and older age groups.

Federal and Provincial Responsibilities

Whether the federal government or the provincial governments should have primary responsibility for the setting and enforcing of health standards and in the delivery of health care services were issues explored in both CHM #6 and CHM #7. Specifically, respondents were asked:

Which level of government, federal or provincial, should have primary responsibility for each of the following aspects of health care:

- setting health standards;
- · enforcing health standards; and
- delivering health care services.

Table 13 provides a summary of the results from the two surveys. When reviewing these results, it should be kept in mind that respondents were explicitly asked whether the federal or provincial government should have primary responsibility for each aspect of health care and that a response of "both levels should have responsibility" had to be volunteered by the respondent. It is not possible to tell whether the proportion of respondents who felt both levels of government should have responsibility would have increased substantially had this option been specifically read to respondents. In addition, subtle differences in the way the question was introduced to respondents across the two surveys may have affected the proportion of respondents that volunteered a particular answer (e.g., purposely emphasizing the word "primary" may have influenced the number who volunteered that both levels of government should have responsibility). Issues concerning the structure and presentation of this question to respondents are important since of all the questions replicated across CHM #6 and CHM #7, this one exhibited the greatest variability from one survey to the next. A summary of the results observed for each of the three aspects of health care considered is presented below.

Setting Health Care Standards

The greatest variability in the pattern of responses from CHM #6 to CHM #7 was observed for this aspect of health care (ϕ = 0.19). As can be seen from Table 13, approximately half of the respondents in both surveys felt that the setting of health care standards was primarily the responsibility of the federal government. The two surveys differed, however, with respect to the percentage who felt that setting health care standards was primarily the responsibility of provincial governments versus the percentage who volunteered that the levels of government should share this responsibility. Although a strong minority of respondents in both surveys stated that provincial governments should have primary responsibility for setting health care standards, twice as many respondents in CHM #6 compared to CHM #7 volunteered that this responsibility should be shared with the federal government.

Table 13. Which Level of Government Should Have Primary Responsibility for Different Aspects of Health Care

	CHM #6 (%)	CHM #7 (%)
Setting health standards		
Federal	53	47
Provincial	27	41
Volunteered: both	14	7
No response	6	6
Enforcing health standards		
Federal	41	37
Provincial	37	49
Volunteered: both	15	8
No response	7	7
Delivering health care services		
Federal	27	22
Provincial	50	62
Volunteered: both	16	9
No response	6	6

Regional variability on this issue was observed in both surveys (CHM #6: $\varphi=0.26;$ CHM #7: $\varphi=0.28).$ Between 53% and 61% of respondents in all regions, except Quebec, stated that the federal government should have primary responsibility for "setting health standards." This held for both CHM #6 and CHM #7. Thirty-two percent of Quebec respondents in CHM #6 and 27% of Quebec respondents in CHM #7 felt the federal government should have primary responsibility in this area.

Although no age differences were observed, there was a trend suggested for differences across educational groups in CHM #6 (ϕ = 0.18) and to a much lesser extent in CHM #7 (ϕ = 0.14). In CHM #6, support for the federal government setting health standards increased across educational groups from a low of 38% among those with less than a high school degree to a high of 64% among those with some university education. In CHM #7, 38% of those with less than a high school degree supported the federal government setting health standards, compared to 59% of those with some university education. Meaningful differences on the remaining sociodemographic variables were not observed for this question.

Enforcing Health Standards

Compared to "setting health standards," fewer respondents in both surveys felt that health standards should be enforced primarily by the federal government (see Table 13). Although there was little variability in the percentage who placed primary responsibility with the federal government across surveys, a weak difference (i.e., trend) in the percentage selecting one of the other two options was suggested (ϕ = 0.15). As with "setting health standards," more respondents in CHM #6 compared to CHM #7 (nearly twice as many) volunteered that both governments should share in the enforcement of health standards. In general, respondents seemed evenly split on whether it was the federal government or provincial governments who should be primarily responsible for the enforcement of health standards (see Table 13).

No differences on sociodemographic variables were observed, except for across regions (CHM #6: φ = 0.19; CHM #7: φ = 0.20). The regional pattern observed was similar to that seen for "setting health standards." Except for Quebec, between 37% and 49% of respondents in the other regions, across the two surveys, stated that the federal government should have primary responsibility in the enforcement of health standards (see Appendix 3). Only 27% of Quebec respondents in CHM #6 and 24% of Quebec respondents in CHM #7 felt the federal government should have primary responsibility in this area.

Delivering Health Care Services

Unlike the previous two aspects of health care considered, more respondents in both surveys clearly placed primary responsibility for the delivery of health care with their provincial government instead of the federal government (see Table 13). Once again a weak difference in the

response pattern across the two surveys was observed (ϕ = 0.14). No meaningful differences across sociodemographic variables, including region, were observed in either survey.

Special Charter to Guarantee Health Services

Whether Canadians require a special charter of health to guarantee health services or whether federal/provincial legislation is sufficient to ensure rights to health services was an issue explored only in CHM #6. Thirty-eight percent of all respondents endorsed the concept of a special charter, compared to about one-half (52%) who felt that federal/provincial legislation was sufficient to ensure Canadians' rights to health services (9% of respondents failed to provide an opinion). No differences on any of the sociodemographic variables of interest were observed.

Providing Good Health Care: Performance of Government

In CHM #7, respondents were asked to make global ratings about the capabilities of both the federal government and the provincial governments in ensuring that Canadians are provided with good health care. The ratings of respondents for both levels of government are summarized in Table 14.

Table 14. Performance of the Federal Government and Provincial Governments in Ensuring That Canadians Are Provided with Good Health Care

	Federal government (%)	Provincial governments (%)
atings		
Excellent	6	7
Good	44	54
Fair	29	27
Poor	16	8
No response	4	3

Overall, 50% of respondents provided the federal government with either an "excellent" or "good" performance rating. Twenty-nine percent did feel that the federal government was only "fair" at providing all with good health care and 16% considered the federal government's performance "poor" in this area. The ratings given provincial governments were somewhat higher, with 61% of all respondents stating that their province was doing either an "excellent" or "good" job at ensuring good health care for all. Twenty-seven percent considered their province's performance "fair"

and only 8% gave their province a "poor" rating. For both questions the "no response" rate was quite low (under 5%). Finally, neither the ratings of the federal government nor the ratings of the provincial governments produced any meaningful differences on sociodemographic variables of interest.

Supplementary questions were asked of those respondents who failed to provide the federal government and/or their provincial government with at least a good performance rating on the provision of health care. Specifically, those providing the federal government with only a "fair" or "poor" rating were asked to state why they felt this level of government was not doing a good job in ensuring that Canadians get good health care (i.e., format of the question was open-ended). Those who gave their provincial government only a "fair" or "poor" rating were also asked why they felt their province was not doing a good job of providing health care.

Results for the federal government and the provincial governments were virtually the same. In both cases the most frequent responses volunteered were that government was "providing insufficient resources" to the health care system or that "government is inefficient/ineffective." Approximately half of the subsample of respondents giving only "fair" or "poor" ratings to the federal government and/or their provincial government offered one of these alternatives as the reason for their rating. Note also, however, that an additional 25% of respondents in each case failed to provide any reason for their low rating.

Health Care: Level of Provincial Spending

In addition to "global ratings" of the federal and provincial governments with respect to the provision of health care, CHM #7 respondents were also asked whether the level of spending on health care within their province was appropriate. Specifically, respondents were informed that their provincial government currently spends about one-third of its total budget on health care and they were asked whether this amount is "too much," "too little," or "about right."

Fifty-three percent of all respondents surveyed felt that the amount spent by their provincial government was "about right," a percentage slightly lower than the 61% who gave their province an "excellent" or "good" overall rating on the provision of health care. Of the remaining respondents, a slightly higher percentage were inclined to state their province was spending "too little" on health care (23%), compared to the percentage who felt that their province was spending "too much" (16%).

Some marginal differences on key sociodemographic variables were observed for this question. For example, the percentage of men and women who felt that their province's level of spending on health care was "about right" was virtually the same (55% and 51%, respectively). However, among those who felt that the level of spending was not appropriate, there was a trend (ϕ = 0.14) for men and women to differ in their opinion on whether the budget was "too much" or "too little." Twenty percent of men, compared to 12% of women, felt that their province's health care budget was "too

much." Conversely, 19% of men, compared to 27% of women, felt that spending a third of the province's total budget on health care was "too little."

There was also a regional difference trend suggested for this question (ϕ = 0.17), with Quebec respondents exhibiting a slightly different pattern than other regions. In particular, Quebec respondents (46%) were less likely than those in other regions (54% to 57%) to perceive that the level of spending on health care by their province was "about right." However, Quebec respondents did not appear to favour one of the other two options as an alternative (i.e., "too much" or "too little").

Finally, although no age or education differences were observed, a difference trend across income groups was suggested (ϕ = 0.17). The main difference was that the percentage of respondents who felt that the level of provincial spending on health care was "too little" decreased as income levels increased. Thirty-three percent of those with household incomes of less than \$20 000 felt that their provincial health care budget was "too little," compared to only 12% of those with household incomes of more than \$75 000.

The overall results on spending are interesting, particularly in light of answers given by respondents when they were asked: "In your opinion, what is the single most important health issue facing your provincial government today?" In CHM #7 this open-ended question was the first asked in the sequence addressing health care issues.

The health care issue mentioned most frequently for this open-ended question was costs of providing health services. Thirty-six percent of all respondents surveyed mentioned this issue. This is comparable to the percentage of respondents who felt their provincial government was spending either "too little" or "too much" on health care (i.e., 39%).

Other main results for this question were that 20% of respondents failed to mention a specific issue and an additional 19% gave "idiosyncratic" answers that were relegated to an "other" category. The only other important health issue that was mentioned by a significant number of respondents was the acquired immunodeficiency syndrome (AIDS). Thirteen percent of all respondents felt AIDS was the single most important health issue facing their provincial government. Although this open-ended question was not formally analyzed, percentages did indicate that only 3% of respondents in Quebec felt their province's most important health issue was AIDS, compared to between 15% and 22% of respondents in other regions.

Health Care: Costs and Related Issues

In addition to directly addressing the issue of level of provincial spending on health care, CHM #7 respondents were asked their opinion on a series of issues related to health care costs. Not only were respondents asked to consider their province's performance on controlling health care costs, they were also asked about financial management within hospitals,

and whether or not the health care system faces a number of particular problems/situations that may contribute to higher costs for health care. Six different statements were presented to respondents and they were provided with four response options ranging from "strongly agree" to "strongly disagree." The results for each of these six statements are summarized below.

Controlling Health Care Costs: Provincial Performance

Respondents were asked whether they agreed or disagreed that "Your provincial government is doing a good job of controlling health care costs." Overall, 54% of respondents either "strongly" or "somewhat" agreed with this statement, a percentage very similar to the number who stated that the amount spent by their province on health care was "about right." Forty-one percent of respondents disagreed "strongly" or "somewhat" with this statement and only a small percentage (5%) failed to provide an opinion.

No gender, education, or income differences were observed for this statement. However, regional differences were observed (ϕ = 0.20) and an age difference trend emerged (ϕ = 0.19). Regional differences indicated that fewer than expected in Ontario (45%) and Quebec (51%) agreed (either "strongly" or "somewhat") with this statement, compared to those in other regions (range from 61% to 69%). Furthermore, when Quebec respondents (and, to a lesser extent, Ontario respondents) disagreed, they were more likely to "strongly" disagree with this statement (28% and 24%, respectively), compared to those in other regions (13% to 14% "strongly" disagreed). With respect to age groups, differences failed to demonstrate a linear trend. Rather, respondents in the middle age groups (46% to 50%) were less likely to agree that their provincial government is doing a good job controlling health care costs, compared to those 15 to 24 years old (62%) and seniors (62%), who were more likely to agree with this statement (see Appendix 3).

Financial Management by Hospitals

Respondents were asked whether they agreed or disagreed that "Hospitals do not manage their finances economically." Approximately half of the respondents surveyed (54%) agreed either "strongly" or "somewhat" with this statement and 29% stated they disagreed. The "no response" rate for this statement, however, was quite high, with 18% of respondents failing to provide an opinion on whether hospitals manage their finances economically.

Region was the only sociodemographic variable to produce any suggestive differences and these differences were marginal (ϕ = 0.17). Quebec respondents (and, to a lesser extent, Ontario respondents) were more likely to agree, either "strongly" or "somewhat," with this statement (60% and 56%, respectively), compared to respondents in other regions where the agreement rate ranged from 46% to 48%.

Hospital Versus Home Care

One possible situation that might contribute to higher overall health care costs would be the unnecessary use of hospital services by those who could be taken care of equally well at home. The survey addressed this issue by asking respondents whether they agreed or disagreed that "Many people in hospital could be looked after at home equally well." A solid majority of respondents (69%) agreed either "strongly" or "somewhat" with this statement. Twenty-five percent disagreed either "strongly" or "somewhat" with the statement and only a small percentage (5%) failed to provide an opinion.

There were no differences on key sociodemographic variables, except for region, where a difference trend was observed (ϕ = 0.18). Once again, it was Quebec that stood out from the other regions. Quebec respondents (78%) were much more likely to "strongly" or "somewhat" agree, compared to those in other regions (65% to 67%), that many hospitalized individuals could be looked after equally well at home. Furthermore, Quebec respondents not only were more likely to agree, but were more likely to "strongly" agree with this statement than those in other regions (48% "strongly" agreed in Quebec, compared to between 24% and 31% in other regions).

Unnecessary Use of Health Care Services

Another situation that would certainly contribute to higher overall costs for health care would be the unnecessary use of health services by many individuals. Survey respondents were asked whether they agreed or disagreed with the statement, "Many people use health services they do not need."

The vast majority of respondents perceived that many people misuse the health care system in this manner. Fifty-seven percent of respondents "strongly" agreed and an additional 27% agreed "somewhat" that many people use health services they do not need. Compared to the 84% who agreed, only 13% of all respondents disagreed (either "strongly" or "somewhat") with this statement and very few (3%) failed to provide an opinion. There were no differences on any of the sociodemographic variables.

Doctors and the Unnecessary Prescription of Medication

Another potentially costly misuse of the health care system explored with respondents focussed on doctors and the prescription of unnecessary medication to patients. Respondents were asked whether they agreed or disagreed that "Doctors often prescribe unnecessary medicine to their patients." Almost three-quarters of all respondents (70%) surveyed agreed with this statement and only 23% stated that they disagreed (10% failed to provide an opinion).

Once again, the only sociodemographic variable that produced any variation was region, where a difference trend was observed ($\phi = 0.17$). Quebec respondents (54%) were more likely than those in any other region

to "strongly" agree that doctors often prescribe unnecessary medication, compared to the percentage who "strongly" agreed in other regions (range between 33% and 38%). A further 25% of Quebec respondents agreed "somewhat" with this statement, compared to between 27% and 38% of respondents in other regions. It should also be noted that Quebec respondents were more likely to provide an opinion on this issue, compared to those in other regions. Only 3% of those in Quebec provided no response on this issue, compared to between 6% and 9% of respondents in other regions.

Extensive Treatment of Those Who Will Die Soon

A final and potentially sensitive issue addressed concerned the level of treatment that should be provided to the terminally ill. With respect to health care costs, extensive treatment for those who will die whether or not such treatment is provided may represent an important drain on the health care system.

To address this issue, respondents were asked whether they agreed or disagreed that "Doctors should not prescribe extensive treatments for people who will die soon anyway." A minority of respondents (38%) agreed (either "strongly" or "somewhat") with this statement and among the 52% who disagreed there was a tendency to "strongly" disagree (34% disagreed "strongly" and 18% disagreed "somewhat"). Ten percent of respondents failed to provide an opinion.

There were no gender, education, or income differences observed for this issue. However, difference trends were observed for both region (ϕ = 0.18) and age (ϕ = 0.18). With respect to region, the only difference observed was that Quebec respondents (51%) were much more likely than those in other regions (31% to 35%) to either "strongly" or "somewhat" agree that doctors should not prescribe extensive treatment for those who will die soon anyway.

For age groups, there was a tendency for older age groups, particularly those 55+, to agree that extensive treatment should not be provided to those who will die soon anyway. Thirty-three percent of 15- to 24-year-olds agreed with this statement, compared to 46% of those 55 to 64 years old and 45% of those 65+. The "no response" rate also increased with age, from a low of 6% among those 15 to 24 years old to a high of 14% among those 55+ (consequently, if only those who responded to this question are considered, the percentage of older respondents that agreed with this statement increases more dramatically compared to younger respondents).

Health Care: Alternative Methods of Payment

An issue explored in CHM #6, but not CHM #7, dealt with respondents' attitudes toward the use of various methods to help raise money to pay for health care costs. The methods considered included introducing user fees, extra billing, higher taxes, and surcharges for those who use more than a certain amount of health services. It is important to note that respondents were provided with the following preamble:

Keeping in mind that right now all Canadians are entitled to health services without charge, please tell me if you would strongly approve, somewhat approve, somewhat disapprove or strongly disapprove of the various ways to raise money to pay for health care costs ...

The implications of this preamble should be kept in mind, particularly when comparing these results to recent polls addressing cost and potential methods of defraying health care costs. Such polls typically do not explicitly remind respondents that "all Canadians are entitled to health services without charge."

The overall results for the different methods of raising money to cover health care costs are presented in Table 15. From this table, the most popular method of raising money was clearly requiring high users of health services to pay extra charges. This is the only option that managed to receive approval from a majority of respondents (55%). Allowing hospitals to charge patients a user fee received approval from nearly half of respondents (44%).

Table	15.	Alternative	Methods	of	Payment	for	Health	Care

	Hospitals charge patients a user fee (%)	Doctors extra bill patients (%)	All Canadians, including you, pay higher taxes (%)	People pay extra only if they use more than a certain amount of health services (%)
Strongly approve	17	6	10	28
Somewhat approve	. 27	15	21	27
Somewhat disapprove	14	15	10	11
Strongly disapprove	39	62	57	30
No response	2	2	2	3

The least popular methods of raising money to pay for health care costs were clearly raising taxes to cover the costs (31% approved) and introducing extra billing (only 21% approved). As indicated in Table 15, a majority of respondents actually "strongly" disapproved of raising taxes to cover health care costs or allowing doctors to extra bill. Finally, Table 15 also indicates that the "no response" rate for all four options considered was extremely low, suggesting that nearly all respondents had an opinion on the use of these methods to raise money.

Very few differences on sociodemographic variables emerged for any of the four "fund-raising" options reviewed. However, two trends were

observed across income groups for the issue of introducing hospital user fees (ϕ = 0.18) and extra billing (ϕ = 0.15). In both cases, approval for these options increased as household income level increased. For example, 37% of those with a household income of less than \$20 000 approved of hospitals charging user fees, compared to 55% approval from those with household incomes of more than \$75 000. Extra billing received approval from 15% of those with household incomes less than \$20 000, compared to 27% approval from those with household incomes of more than \$75 000. Conversely, 71% of those in the lowest income group "strongly" disapproved of extra billing, compared to just over half (57%) of those in the highest income group.

The only other sociodemographic difference was a suggested difference between men and women with respect to introducing higher taxes to help pay for health care costs (ϕ = 0.11). Though the phi coefficient for this comparison was low, adjusted residuals were relatively high and suggested a trend worth mentioning. Specifically, results indicated that 36% of men but only 26% of women approved, either "strongly" or "somewhat," with the introduction of higher taxes to pay for health care.

Cost and the Role of Doctors in Decisions to Withhold Treatment

A final set of questions included in CHM #7 addressed the difficult issue of doctors making decisions to withhold medical treatment from terminally ill patients. Respondents were asked to consider this issue and the scenarios presented within the context of controlling health care costs. Specifically, the following preamble was read to respondents before they were asked to provide their opinions:

All provincial governments are under pressure to control health care costs. Often the doctor has a hard time deciding what kind of treatment to give someone who will die whether or not they receive the treatment. Keeping in mind the costs of health care and also the rights of Canadians to receive health care, would you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with your doctor making the following difficult decisions.

Table 16 lists the three decisions considered and summarizes the overall results for each.

For the most part, respondents were split on the issue of doctors deciding to withhold different types of treatment from terminally ill patients. Sixty percent of respondents did agree with the idea of caring for those who will die soon in regular hospital care facilities rather than an expensive intensive care unit. However, 53% agreed with the idea of forgoing surgery on someone who will die soon regardless of efforts. Less than half of respondents (46%) agreed with the idea of stopping treatment of terminally ill cancer patients. As indicated in Table 16, nearly 1 out of every 10 respondents failed to provide an opinion on these issues.

Table 16. Controlling Health Care Costs and the Role of Doctors in Decisions to Withhold Treatment

	Not to carry out expensive surgery on someone who will die soon whether or not they have the surgery (%)	To place someone who will die soon in regular hospital care rather than in the most expensive intensive care unit in the hospital (%)	To stop treating someone who has cancer which cannot be cured (%)	
Strongly agree	24	29	24	
Somewhat agree	29	31	22	
Somewhat disagree	16	14	16	
Strongly disagree	23	17	30	
No response	8	9	8	

The key sociodemographic variables of interest produced few meaningful differences. However, marginal differences across age groups were observed for the issue of not pursuing surgery on those who will die soon anyway ($\phi = 0.19$) and for the issue of not treating terminally ill cancer patients ($\phi = 0.15$). In both cases, those 55 and older were more likely to "strongly" agree with these statements, compared to those in the younger age groups. For example, 34% of 55- to 64-year-olds and 33% of those 65+ strongly agreed that surgery should not be carried out on those who will die soon anyway. Between 15% and 25% of the younger age groups "strongly" agreed with this issue. However, when the percentage who "somewhat" agreed with this statement is taken into consideration, differences across age groups were minimal (percentage who "strongly" or "somewhat" agreed ranged from 51% to 59% across age groups). These results are complicated somewhat by the differences in "no response" rate, which increased with age from a low of 3% (among those 15 to 24 years old) to a high of 14% among those 65+. Consequently, differences across age groups were more dramatic when only those who provided valid responses were considered (i.e., those failing to respond were excluded from calculated percentages).

As indicated above, there was also a weak age difference trend for the issue of stopping treatment of terminally ill patients. The pattern of results was very much the same as that seen for the issue of forgoing surgery on those who will die soon anyway. That is, the percentage of respondents who "strongly" agreed with this second statement increased with age from a low of 17% among those 15 to 24 years old to a high of 30% among those

55 and over. When the percentage who "somewhat" agreed is considered, however, little difference across age groups is observed (percentage who "strongly" or "somewhat" agreed ranged from 39% to 52% across age groups). Like the previous statement, the "no response" rate differed quite markedly across age groups, from a low of 4% for those 15 to 24 years old to a high of 16% among those 65+. As a consequence, considering only those who gave an opinion results in a larger difference across age groups.

Only one other suggested sociodemographic difference was observed for these issues on doctors deciding to withhold treatment of the terminally ill. There was a regional difference trend (ϕ = 0.18) observed for the issue of stopping treatment of cancer patients. Fifty-nine percent of Quebec respondents either "strongly" or "somewhat" agreed with such a decision, compared to between 38% and 48% of respondents in other regions. Regional differences, however, were not observed for the other two issues reviewed here.

Appendix 1. Canada Health Monitor Descriptions of Survey Methodology

The following descriptions were provided by Price Waterhouse.

Methodology: CHM #6

The Canada Health Monitor Survey #6 was carried out by Price Waterhouse of Ottawa.

Interviewing Dates, Sample Size, and Margin of Error

On behalf of the Canada Health Monitor, Price Waterhouse interviewed a representative sample of 2 723 Canadians, 15 years of age and older, between August and November 1991. Additional interviews were completed on 27 and 28 February 1992. For a sample of 2 723 the margin of error is plus or minus 1.88 percentage points in 19 samples out of 20. The margins of error are correspondingly higher for regional, demographic, and other subgroups.

Questionnaire Design

The questionnaire was designed by Dr. Earl Berger in consultation with Dr. Len Rutman, Dr. Tom Stephens, Dr. Neil Stuart, and Dr. Nancy Staisey. The Canada Health Monitor alone is responsible for the final version of the questionnaire. The instrument was pretested among 11 respondents approximately two weeks before the start of the fieldwork. The final questionnaire required, on average, 33 minutes to administer. Respondents were interviewed in either English or French, both versions residing simultaneously on Price Waterhouse's computer.

Telephone Interviewing

Experienced, professional telephone interviewers assisted in this survey. Prior to the fieldwork, each interviewer was briefed thoroughly about the nature of the study. The fieldwork was undertaken from Price Waterhouse's National Survey Centre in Ottawa, using CATI technology.

Field supervisors were present at all times to ensure accurate and consistent interviewing and recording of responses. All responses were entered directly into Price Waterhouse's on-line Data General MV2000 minicomputer. This system of direct data entry automatically checks responses for appropriateness of range and logical consistency at the time of data entry.

At the conclusion of each night's interviewing, all interviews from that session were checked a second time for any possible errors. This procedure is equivalent to 100% keypunch verification when traditional paper and pencil methods are employed.

In addition, 10% of each interviewer's work was unobtrusively monitored in accordance with the verification standards of the Canadian Association of Marketing Research Organizations (CAMRO). A monitor listened to the interview over a one-way telephone while watching a terminal that simultaneously duplicated the interviewer's keystrokes.

Sample Selection

The sample for the Canada Health Monitor was generated using a stratified two-stage sampling technique. In the first stage, each province was allocated a quota proportional to its contribution to the population of Canada. In the second stage, each community in Canada was assigned to one of five community size strata.

A quota was then established for each community size stratum within each province. Montreal, Toronto, and Vancouver were treated separately in terms of the community size strata.

A modified Waksberg-Mitofsky procedure was used to produce the actual sample frame. This method utilizes currently listed telephone numbers and then randomly generates numbers around the initially selected numbers. This procedure ensures that the sample will include both unlisted numbers and numbers listed after directory publication. The original "seed" numbers are then discarded. A total of 20 164 telephone numbers were randomly generated using this technique to yield the final sample for the survey.

In households containing more than one eligible respondent, a single individual was selected using the Troldahl-Carter technique. This screening of respondents ensured that the sample accurately represented the population according to age and sex. Once a potential respondent was chosen by the Troldahl-Carter procedure, no other person in the household could be substituted.

The entire sampling procedure was designed to produce a probability sample to which all sample statistics are applicable.

Table 1A. Canada Health Monitor Survey #6

	Population % of total	Sample unweighted n	Weight	Sample weighted n*
Newfoundland	2.25	48	1.2764	61
(n = 568 349)	0.04	10	1.4500	17
100 000+	0.64	12	1.4523	4
30 000 - 99 999	0.13	1	3.5399	7
10 000 - 29 999	0.24	8	0.8169	3
5 000 - 9 999	0.11	5	0.5991	
<5 000	1.13	22	1.3986	31
Prince Edward Island (n = 126 246)	0.50	13	1.0473	14
100 000+	0.00	0	-	0
30 000 - 99 999	0.21	2	2.8592	6
10 000 - 29 999	0.06	3 .	0.5446	2
5 000 - 9 999	0.00	1 1	0.0000	0
<5 000	0.23	7	0.8947	6
Nova Scotia (n = 873 176)	3.46	77	1.2236	94
100 000+	1.65	17	2.6429	45
30 000 - 99 999	0.32	5	1.7427	9
10 000 - 29 999	0.43	18	0.6505	12
5 000 - 29 999	0.59	4	4.0164	16
<5 000 - 9 999	0.48	33	0.3961	13
New Brunswick	2.81	66	1.1593	77
(n = 709 442)	0.89	8	3.0293	24
100 000+	0.69	23	0.4736	11
30 000 - 99 999 10 000 - 29 999	0.40	3	1.3615	4
	0.15	6	1.4523	9
5 000 - 9 999 <5 000	1.06	26	1.1101	29
<5 000	1.00			
Quebec (n = 6 532 461)	25.89	520	1.3557	705
Montreal	11.58	232	1.3592	315
100 000+	4.84	97	1.3587	132
30 000 - 99 999	2.49	.50	1.3561	68
10 000 - 29 999	1.03	20	1.4023	28
5 000 - 9 999	0.66	14	1.2837	18
<5 000	5.30	107	1.3488	144

Table 1A. (cont'd)

	Population % of total	Sample unweighted n	Weight	Sample weighted n
Ontario (n = 9 101 694)	36.07	1 201	0.8178	982
Toronto	13.58	452	0.8181	370
100 000+	11.98	400	0.8155	326
30 000 - 99 999	3.53	117	0.8216	96
10 000 - 29 999	1.68	56	0.8169	46
5 000 - 9 999	1.58	52	0.8274	43
<5 000 - 9 999	3.72	124	0.8169	101
Manitoba	4.21	85		
(n = 1 063 016)	4.21	65	1.3487	115
100 000+	2.48	50	1.3506	68
30 000 - 99 999	0.15	3	1.3615	4
10 000 - 29 999	0.18	4	1.2254	5
5 000 - 9 999	0.28	6	1.2707	8
<5 000	1.12	22	1.3863	30
Saskatchewan	4.00	81	1.3447	109
(n = 1 0.09 613) 100 000+	1.53	32	1 2010	40
30 000 - 99 999	0.31	6	1.3019	42
10 000 - 29 999	0.33	7	1.4069 1.2837	8
5 000 - 9 999	0.07	1	1.9061	
<5 000	1.77	35	1.3771	2 48
Alberta n = 2 365 825)	9.38	402	0.6354	255
100 000+	5.77	248	0.6335	157
30 000 - 99 999	0.84	39	0.5865	23
10 000 - 29 999	0.43	19	0.6163	12
5 000 - 9 999	1.12	46	0.6630	30
<5 000	1.22	50	0.6644	33
British Columbia (n = 2 883 367)	11.43	230	1.3532	311
Vancouver	5.47	110	1.3541	149
100 000+	1.01	21	1.3096	28
30 000 - 99 999	2.26	. 45	1.3676	62
10 000 - 29 999	1.22	24	1.3842	33
5 000 - 9 999	0.63	13	1.3196	17
<5 000	0.83	17	1.3295	23
Canada n = 25 309 331)	100.00	2 723		2 723

^{*} Numbers may not add up to provincial totals due to rounding.

Alberta Oversample

In addition to the proportional quota allocated to Alberta, a representative sample of 215 additional interviews was conducted. The Alberta oversample was drawn using the stratified two-stage sampling technique together with the Waksberg-Mitofsky procedure for randomly generating telephone numbers.

Weighting

At the conclusion of the survey and prior to the data analysis, the data for the Canada Health Monitor were weighted and verified against Statistics Canada information. Price Waterhouse used cell weights by province and community size in order to adjust for differences in response. Table 1A shows the sample distribution by province and community size with the weighting scheme used to correct the sample after interviewing.

Methodology: CHM #7

The Canada Health Monitor Survey #7 was carried out by Price Waterhouse of Ottawa.

Interviewing Dates, Sample Size, and Margin of Error

On behalf of the Canada Health Monitor, Price Waterhouse interviewed a representative sample of 2 725 Canadians, 15 years of age and older, between December 1991 and February 1992. For a sample of 2 725 the margin of error is plus or minus 1.88 percentage points in 19 samples out of 20. The margins of error are correspondingly higher for regional, demographic, and other subgroups.

Questionnaire Design

The questionnaire was designed by Dr. Earl Berger in consultation with Dr. Len Rutman, Dr. Tom Stephens, Dr. Neil Stuart, and Dr. Nancy Staisey. The Canada Health Monitor alone is responsible for the final version of the questionnaire. The instrument was pretested among 11 respondents approximately two weeks before the start of the fieldwork. The final questionnaire required, on average, 33 minutes to administer. Respondents were interviewed in either English or French, both versions residing simultaneously on Price Waterhouse's computer.

Telephone Interviewing

Experienced, professional telephone interviewers assisted in this survey. Prior to the fieldwork, each interviewer was briefed thoroughly about the nature of the study. The fieldwork was undertaken from Price Waterhouse's National Survey Centre in Ottawa using CATI technology.

Field supervisors were present at all times to ensure accurate and consistent interviewing and recording of responses. All responses were entered directly into Price Waterhouse's on-line Data General MV2000 minicomputer. This system of direct data entry automatically checks responses for appropriateness of range and logical consistency at the time of data entry.

At the conclusion of each night's interviewing, all interviews from that session were checked a second time for any possible errors. This procedure is equivalent to 100% keypunch verification when traditional paper and pencil methods are employed.

In addition, 10% of each interviewer's work was unobtrusively monitored in accordance with the verification standards of the Canadian Association of Marketing Research Organizations (CAMRO). A monitor listened to the interview over a one-way telephone while watching a terminal that simultaneously duplicated the interviewer's keystrokes.

Sample Selection

The sample for the Canada Health Monitor was generated using a stratified two-stage sampling technique. In the first stage, each province was allocated a quota proportional to its contribution to the population of Canada. In the second stage, each community in Canada was assigned to one of five community size strata.

A quota was then established for each community size stratum within each province. Montreal, Toronto, and Vancouver were treated separately in terms of the community size strata.

A modified Waksberg-Mitofsky procedure was used to produce the actual sample frame. This method utilizes currently listed telephone numbers and then randomly generates numbers around the initially selected numbers. This procedure ensures that the sample will include both unlisted numbers and numbers listed after directory publication. The original "seed" numbers are then discarded. A total of 20 164 telephone numbers were randomly generated using this technique to yield the final sample for the survey.

In households containing more than one eligible respondent, a single individual was selected using the Troldahl-Carter technique. This screening of respondents ensured that the sample accurately represented the population according to age and sex. Once a potential respondent was chosen by the Troldahl-Carter procedure, no other person in the household could be substituted.

The entire sampling procedure was designed to produce a probability sample to which all sample statistics are applicable.

Alberta Oversample

In addition to the proportional quota allocated to Alberta, a representative sample of 200 additional interviews was conducted. The Alberta oversample was drawn using the stratified two-stage sampling technique together with the Waksberg-Mitofsky procedure for randomly generating telephone numbers.

Weighting

At the conclusion of the survey and prior to the data analysis, the data for the Canada Health Monitor were weighted and verified against Statistics Canada information. Price Waterhouse used cell weights by province and community size in order to adjust for differences in response. Table 1B shows the sample distribution by province and community size with the weighting scheme used to correct the sample after interviewing.

Table 1B. Canada Health Monitor Survey #7

	Population % of total	Sample unweighted n	Weight	Sample weighted n*
Newfoundland (n = 568 349)	2.25	49	1.2513	61
(n = 568 349) 100 000+	0.64	13	1.3415	17
	0.64	3	1.1808	4
30 000 - 99 999	0.13	5	1.3080	7
10 000 - 29 999		5 4	0.7494	3
5 000 - 9 999	0.11			
<5 000	1.13	24	1.2830	31
Prince Edward Island (n = 126 646)	0.50	10	1.3625	14
100 000+	0.00	-	-	-
30 000 - 99 999	0.21	4	1.4306	6
10 000 - 29 999	0.06	1	1.6350	2
5 000 - 9 999	0.00			-
<5 000 - 9 393	0.23	5	1.6350	. 8
Nova Scotia (n = 873 176)	3.46	77	1.2245	94
· · · · · · · · · · · · · · · · · · ·	1.65	36	1.2490	45
100 000+	0.32	6	1.4533	9
30 000 - 99 999	0.32	9	1.3019	12
10 000 - 29 999		9 15	1.0718	16
5 000 - 9 999	0.59		1.0718	13
<5 000	0.48	11		
New Brunswick (n = 709 442)	2.81	56	1.3674	77
100 000+	0.89	18	1.3474	24
30 000 - 99 999	0.40	8	1.3625	11
10 000 - 29 999	0.15	3	1.3625	4
5 000 - 9 999	0.32	6	1.4533	9
<5 000 - 9 999	1.06	21	1.3755	29
Quebec	25.89	530	1.3311	706
(n = 6 532 461)	14.50	004	1 2/05	316
Montreal	11.58	234	1.3485	132
100 000+	4.84	103	1.2805	132 68
30 000 - 99 999	2.49	50	1.3571	
10 000 - 29 999	1.03	22	1.2758	28
5 000 - 9 999	0.66	15	1.1990	18
<5 000	5.30	106	1.3625	144

Table 1B. (cont'd)

	Population % of total	Sample unweighted n	Weight	Sample weighted n*
Ontario	36.07	1 194	0.8232	983
(n = 9 101 694)				
Toronto	13.58	453	0.8169	370
100 000+	11.98	399	0.8182	326
30 000 - 99 999	3.53	117	0.8222	96
10 000 - 29 999	1.68	56	0.8175	46
5 000 - 9 999	1.58	48	0.8970	43
<5 000	3.72	121	0.8378	101
Manitoba	4.21	85	1.3497	115
(n = 1 063 016)				
100 000+	2.48	50	1.3516	68
30 000 - 99 999	0.15	3	1.3625	4
10 000 - 29 999	0.18	4	1.2263	5
5 000 - 9 999	0.28	6	1.2717	8
<5 000	1.12	22	1.3873	31
Saskatchewan (n = 1 009 613)	4.00	80	1.3625	109
100 000+	1.53	31	1.3449	42
30 000 - 99 999	0.31	6	1.4079	8
10 000 - 29 999	0.33	7	1.2846	9
5 000 - 9 999	0.07	1	1.9075	2
<5 000	1.77	35	1.3781	48
Alberta n = 2 365 825)	9.38	411	0.6219	256
100 000+	5.77	252	0.6239	157
30 000 - 99 999	0.84	40 *	0.5723	23
10 000 - 29 999	0.43	19	0.6167	12
5 000 - 9 999	1.12	48	0.6358	31
<5 000	1.22	52	0.6393	33
British Columbia n = 2 883 367)	11.43	233	1.3368	311
/ancouver	5.47	109	1.3675	149
100 000+	1.01	20	1.3761	28
30 000 - 99 999	2.26	45	1.3686	62
10 000 - 29 999	1.22	26	1.2787	33
5 000 - 9 999	0.63	. 15	1.1445	17
<5 000	0.83	18	1.2565	23
Danada n = 25 233 589)	100.00	2 725		2 725

^{*} Numbers may not add up to provincial totals due to rounding.

Table 1C. The Canada March 1992	Health Monitor — Survey 7, Final Rep	ort,
		0 705

larch 1992	
Number of interviews required	2 725
Interviews completed	2 725
Total telephone numbers dialled	21 424
Ineligible numbers	
Not valid/non-residential	1 513
Unusable call record	8
Not in service/wrong number	5 752
Total eligible telephone numbers	14 151
No answer/busy	4 502
Answering machine	1 183
Number of valid attempted interviews	8 466
Interview not completed	
Refused to participate (screening/introduction)	4 955
Refused to participate (incomplete interview)	176
Language barrier	339
Mental/physical disabilities	123
Does not meet study criterion	39
Respondent not available for duration of study	<u>109</u>
Completed interviews	2 725
Completion rate (2 725/8 466)	32.2%

Appendix 2. Subsample Sizes (Weighted) for Key Sociodemographic Variables

Table 2A. Subsample Sizes (Weighted) for Key Sociodemographic Variables

	CHM #6 (2 726)	CHM #7 (2 728)
Region		
Atlantic	246	248
Quebec	706	706
Ontario	985	983
Prairies	478	480
British Columbia	311	311
Age		
15-24	384	385
25-34	631	658
35-44	580	650
45-54	380	367
55-64	347	279
65+	389	380
Education		
Less than high school	825	758
High school graduate	708	699
At least some community		
college/vocational school	488	536
At least some university	692	725
Household income		
Less than \$20 000	561	559
\$20 000 - \$29 999	426	502
\$30 000 - \$49 999	724	758
\$50 000 - \$74 999	397	423
\$75 000+	272	252
Gender		
Male	1 243	1 338
Female	1 484	1 389

Note: Numbers reported for sociodemographic subgroups do not sum to overall totals due to rounding error and missing data. Overall totals for the survey given here also do not exactly match those values provided in Appendix 1 due to rounding error introduced during the generation of summary tables.

This appendix includes the complete set of sociodemographic tables for each survey question reviewed in this report. The tables are presented in the order survey questions have been reviewed in the text. All values

reported in these tables are percentages.

For each cross-tabulated table, the calculated chi-square value has been reported. All chi-square tests were computed based only on valid responses (i.e., those indicating "no response" were excluded from the analysis). The statistical significance of chi-square values was tested against alpha = 0.01 (obtained probability values greater than 0.01 have been listed as not statistically significant). Phi coefficient values have also been reported for those cross-tabulations in which the chi-square value was found to be statistically significant.

Donor Insemination

There are various kinds of reproductive technology which can help a couple who are having difficulty conceiving a baby. Please tell me if you approve or disapprove of each of the following kinds of reproductive technology ...

The man is not fertile and the woman is made pregnant with sperm donated by another man.

CHM #6		Region				Ge	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24	25- 34	35- 44			65+
Approve	61	63	66	62	73	68	62	67	73	74	67	53	44
Disapprove	35	33	28	29	19	26	31	32	24	22	28	33	43
No response	4	4	6	9	7	5	7	2	. 3	4	5	14	12
	$\chi^2 = \phi = 0$	21.88				$\chi^2 = 9.58$ $\phi = 0.06$				3			

СНМ #6		Educa	Income						
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	to	Over \$75K
Approve	58	64	68	72	53	63	69	73	81
Disapprove	36	30	27	21	38	31	27	23	14
No response	6	5	6	7	9	6	4	4	6
	$\chi^2 = 38.84$ $\phi = 0.12$				$\chi^2 = 7$ $\phi = 0.$				

Donor Insemination

There are various kinds of reproductive technology which can help a couple who are having difficulty conceiving a baby. Please tell me if you approve or disapprove of each of the following kinds of reproductive technology ...

The man is not fertile and the woman is made pregnant with sperm donated by another man.

CHM #7			Regio	n		Ger	nder			/	Age		
	Atl.						F	1			45- 54		65+
Approve	51	61	65	64	68	64	61	68	74	68	61	50	38
Disapprove	43	37	30	28	26	31	33	32	24	28	33	42	47
No response	6	3	6	8	6	5	6	1	2	5	6	7	14
	$\chi^2 = \phi = 0$	28.89				1	1.76, n.s.		= 113 0.21				

CHM #7		Educa	tion				income		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	to	Over \$75K
Approve	50	60	69	73	50	57	67	74	79
Disapprove	44	33	27	23	43	38	28	23	17
No response	5	7	4	4	7	4	5	3	4
	$\chi^2 = 91.88$ $\phi = 0.19$			$\chi^2 = 97$ $\phi = 0.2$					

In Vitro Fertilization

There are various kinds of reproductive technology which can help a couple who are having difficulty conceiving a baby. Please tell me if you approve or disapprove of each of the following kinds of reproductive technology ...

The woman has difficulty conceiving, and an egg is surgically removed from her, fertilized by the man's sperm, then put back into her so she can have the baby.

CHM #6			Regio	n		Gei	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	вс	M	F		25- 34				65+
Approve	84	78	86	84	87	83	84	87	92	88	84	75	69
Disapprove	12	18	10	9	9	12	12	12	6	9	13	15	21
No response	5	4	5	7	4	5	4	1	2	3	4	10	11
	$\chi^2 = 3$ $\phi = 0$						0.00, n.s.			1			

CHM #6		Educa	tion			1	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Approve	76	86	88	88	77	84	89	90	90
Disapprove	18	11	9	7	17	12	9	7	5
No response	6	3	2	5	6	5	2	4	5
	$\chi^2 = 45.26$ $\phi = 0.13$				$\chi^2 = 45$ $\phi = 0.1$				

In Vitro Fertilization

There are various kinds of reproductive technology which can help a couple who are having difficulty conceiving a baby. Please tell me if you approve or disapprove of each of the following kinds of reproductive technology ...

The woman has difficulty conceiving, and an egg is surgically removed from her, fertilized by the man's sperm, then put back into her so she can have the baby.

CHM #7			Regio	n		Ger	nder			Α	ge		
	Atl.	Que.	Ont.	Prairies	ВС	M	F	15- 24	25- 34				65+
Approve	80	76	83	84	82	81	82	89	90	87	76	74	60
Disapprove	14	22	12	12	12	15	14	11	8	11	18	20	28
No response	6	3	5	4	5	4	5	1	2	3	6	6	12
	$\chi^2 = \phi = 0$	36.41				1	0.55, n.s.		: 121. 0.22	61			

CHM #7		Educat	tion			I	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Approve	75	81	84	87	72	81	86	87	90
Disapprove	21	14	13	10	23	16	12	9	6
No response	4	5	3	3	6	2	3	4	3
	$\chi^2 = 39.47$ $\phi = 0.12$				$\chi^2 = 66$ $\phi = 0.1$				

Surrogacy (Preconception Arrangements)

There are various kinds of reproductive technology which can help a couple who are having difficulty conceiving a baby. Please tell me if you approve or disapprove of each of the following kinds of reproductive technology ...

The woman is not fertile and the man donates his sperm to another woman who is paid to have the baby for the couple.

CHM #6			Regio	n		Gen	der			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Approve	40	40	40	39	46	48	34	45	46	46	40	34	26
Disapprove	56	57	52	52	48	46	59	53	50	49	55	54	62
No response	4	4	8	8	7	5	7	1	4	5	5	12	11
	$\chi^2 =$	5.23, n.	S.			$\chi^2 = 5$ $\phi = 0.$		$\chi^2 = \phi = 0$	41.4 0.13	8			

CHM #6		Educa	tion			ı	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Approve	39	42	42	41	35	41	44	42	49
Disapprove	54	53	52	52	57	53	52	53	45
No response	7	5	5	8	9	6	4	6	6
	$\chi^2 = 1.15,$	n.s.			$\chi^2 = 14$ $\phi = 0.0$				

Surrogacy (Preconception Arrangements)

There are various kinds of reproductive technology which can help a couple who are having difficulty conceiving a baby. Please tell me if you approve or disapprove of each of the following kinds of reproductive technology ...

The woman is not fertile and the man donates his sperm to another woman who is paid to have the baby for the couple.

CHM #7		30 38 39 39 36 66 60 55 53 57				Gen	der			A	\ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F	l .			45- 54		65+
Approve	30	38	39	39	36	42	33	46	45	39	37	25	25
Disapprove	66	60	55	53	57	53	62	53	52	57	56	68	64
No response	4	2	6	8	7	5	5	1	3	4	7	7	11
	$\chi^2 =$	10.04,	n.s.			$\chi^2 = 2$ $\phi = 0.$		1	= 56.: 0.15				

CHM #7		Educat	ion				Income	,	
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	to	\$50K to \$75K	Over \$75K
Approve	32	38	41	42	31	35	40	46	45
Disapprove	63	56	55	53	63	61	56	51	50
No response	5	6	4	5	6	4	4	4	5
	$\chi^2 = 18.68$ $\phi = 0.09$				$\chi^2 = 2$ $\phi = 0.$				

Surrogacy (Preconception Arrangements)

There are various kinds of reproductive technology which can help a couple who are having difficulty conceiving a baby. Please tell me if you approve or disapprove of each of the following kinds of reproductive technology ...

The woman has difficulty conceiving, and an egg is surgically removed from her, fertilized by the man's sperm, and put into another woman who is paid to have the baby for the couple.

CHM #6			Regi	on		Gen	der			А	ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24		35- 44	45- 54		65+
Approve	43	36	39	40	46	45	34	42	44	45	40	33	27
Disapprove	52	60	54	52	48	49	59	57	52	50	55	55	61
No response	5	5	7	9	6	6	6	2	4	5	6	12	12
	$\chi^2 = \phi = 0$	14.05).07				$\chi^2 = 3$ $\phi = 0.$		$\chi^2 = \phi = 0$		2			

СНМ #6		Educa	tion			ı	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Approve	37	42	40	39	35	39	42	43	45
Disapprove	56	53	55	53	57	55	54	53	47
No response	8	4	4	8	9	6	4	5	7
	$\chi^2 = 3.08,$	n.s.			$\chi^2 = 9.5$	99, n.s.			

Surrogacy (Preconception Arrangements)

There are various kinds of reproductive technology which can help a couple who are having difficulty conceiving a baby. Please tell me if you approve or disapprove of each of the following kinds of reproductive technology ...

The woman has difficulty conceiving, and an egg is surgically removed from her, fertilized by the man's sperm, and put into another woman who is paid to have the baby for the couple.

CHM #7			Regio	n		Gen	der			Α	ge		
	Atl.						F	15- 24	25- 34	35- 44	45- 54		65+
Approve	31	34	35	33	33	38	30	42	39	37	32	23	21
Disapprove	64	64	59	60	61	57	65	57	59	60	61	68	65
No response	5	2	7	7	5	5	5	0	3	3	7	8	13
	$\chi^2 = 2.26$, n.s.					$\begin{vmatrix} \chi^2 = 20.00 \\ \phi = 0.09 \end{vmatrix} \chi^2 = 44.26 \\ \phi = 0.13 $			5				

CHM #7		Educa	tion			ı	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Approve	28	33	35	39	28	33	35	41	41
Disapprove	66	61	62	56	66	64	61	54	55
No response	6	6	4	5	6	3	4	5	4
	$\chi^2 = 19.56$ $\phi = 0.09$	$66 61 62$ $6 6 4$ $\chi^2 = 19.56$				3.22			

Who Should Pay for Reproductive Technologies

Some of these reproductive technologies are expensive and may not work. There are various ways to pay for these reproductive technologies. Which one do you agree with?

CHM #6			Reg	jion		Gen	der			Α	ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34		45- 54		65+
The provincial health insurance plan should pay all costs to help a couple have a baby	6	8	8	6	5	9	6	10	9	8	6	5	4
The couple should pay all costs	38	27	32	35	34	34	. 31	21	25	32	33	41	44
The province and the couple should share the costs	53	58	55	55	55	53	57	67	64	56	59	43	38
No response	4	8	5	4	6	4	6	2	2	3	2	11	14
	χ² =	= 17.28	3, n.s.			$\chi^2 = 10$ $\varphi = 0.0$		$\chi^2 = \phi = 0$	114. 0.21	18			

CHM #6		Educa	tion			ı	ncome	•	
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	to	Over \$75K
The provincial health insurance plan should pay all costs to help a couple have a baby	9	7	5	7	9	6	6	10	7
The couple should pay all costs	34	31	28	33	32	29	30	30	36
The province and the couple should share the costs	50	58	62	56	53	58	61	57	55
No response	7	3	5	4	6	7	3	2	3
	$\chi^2 = 18.81$ $\phi = 0.09$				$\chi^2 = 15$	5.29, n	.s.		

Who Should Pay for Reproductive Technologies

Some of these reproductive technologies are expensive and may not work. There are various ways to pay for these reproductive technologies. Which one do you agree with?

CHM #7			Regi	on		Ger	nder			Αç	je		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
The provincial health insurance plan should pay all costs to help a couple have a baby	4	14	8	5	7	11	6	10	9	9	8	9	4
The couple should pay all costs	33	32	33	33	37	35	31	25	28	33	35	44	42
The province and the couple should share the costs	57	47	55	59	49	50	56	63	61	54	50	40	39
No response	7	7	5	3	8	4	6	2	2	3	6	8	14
	1 / 0	= 50.7° 0.14	1			$\chi^2 = 2$ $\phi = 0$		$\chi^2 = 0$ $\varphi = 0$					

CHM #7		Educa	tion			ı	ncome)	
	Less than high school	High school graduate	Comm.	Uni- versity	than	to	\$30K to \$50K	to	Over
The provincial health insurance plan should pay all costs to help a couple have a baby	8	8	10	8	9	10	7	9	0
The couple should pay all costs	31	37	29	35	32	32	33	35	34
The province and the couple should share the costs	54	50	56	53	50	52	56	53	55
No response	7	5	4	3	9	6	3	3	2
	$\chi^2 = 11.59$, n.s.			$\chi^2 = 5$.63, n.	S.		

Who Should Pay for Reproductive Technologies

If they share the costs which do you agree with? (Subsample: Those who indicated that province and couple should share costs.)

CHM #6			Regio	n		Gei	nder			A	ge	45- 55- 54 6 4	
	Atl. (130)			Prairies (261)		M (662)	F (853)	15- 24 (258)	25- 34 (403)	35- 44 (327)	54	64	65+ (149)
The province should pay most of the costs	6	12	12	10	12	14	9	12	12	13	9	8	8
The couple should pay most of the costs	22	16	23	23	16	22	19	25	19	21	19	14	23
The couple and the province should share the cost equally	66	70	62	65	71	63	68	63	67	63	60	70	62
No response	5	2	3	3	2	2	3	1	1	3			63 7
	$\chi^2 = \frac{1}{2}$	14.38,	n.s.			$\chi^2 = \phi = 0$	10.06	$\chi^2 = 1$	4.06,	n.s.			

CHM #6		Educ	ation				Income)	
	Less than high school (409)	High school (413)	Comm. col./voc. (302)	Uni- versity (387)	Less than \$20K (295)	\$20K to \$30K (248)	\$30K to \$50K (442)	\$50K to \$75K (227)	Over \$75K (150)
The province should pay most of the cost	13	11	9	11	10	9	13	11	11
The couple should pay most of the cost	17	16	23	26	16	18	22	19	27
The couple and the province should share the cost equally	65	72	67	61	70	70	63	67	60
No response	4	1	1	2	4	3	2	3	2
	$\chi^2 = 20.40$ $\phi = 0.12$				$\chi^2 = 1$	2.44, n.	S.		

Who Should Pay for Reproductive Technologies

If they share the costs which do you agree with? (Subsample: Those who indicated that province and couple should share costs.)

CHM #7			Regio	n		Gen	der			A	ge		
	Atl. (142)			Prairies (281)		M (663)	F (782)	15- 24 (244)	25- 34 (399)	35- 44 (353)	45- 54 (184)	55- 64 (111)	65+ (150)
The province should pay most of the costs	15	13	11	9	18	17	8	14	13	13	11	9	7
The couple should pay most of the costs	19	18	24	22	24	20	23	26	23	20	21	21	19
The couple and the province should share the cost equally	62	68	60	65	53	59	65	58	60	63	67	63	67
No response	3	1	5	4	5	4	3	2	4	4	1	7	8
	$\chi^2 = \frac{1}{2}$	16.81,	n.s.			$\chi^2 = 2$ $\phi = 0$		χ² =	10.77,	n.s.			

CHM #7		Educa	ation				Incom	е	
	Less than high school (409)	High school (348)	Comm. col./voc. (298)	Uni- versity (388)	Less than \$20K (281)	\$20K to \$30K (263)	to \$50K	\$50K to \$75K (222)	Over \$75K (140)
The province should pay most of the cost	12	9	13	15	12	10	15	12	11
The couple should pay most of the cost	19	22	19	n.a.	23	18	21	22	26
The couple and the province should share the cost equally	65	65	64	n.a.	62	68	61	60	61
No response	4	4	4	4	4	3	4	6	3
	$\chi^2 = \text{n.a.}$				$\chi^2 = 8$.49, n.s			
n.a. = not available.									

Covering Costs of Reproductive Technologies for a Second Child

If a couple already have their own child and need to use reproductive technologies to have a second child, should your provincial health insurance program pay \dots

CHM #6			Regio	n		Ger	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34		45- 54		65+
All of the cost	11	8	6	6	7	8	6	5	7	7	8	9	7
Some of the cost	37	47	43	38	38	42	42	58	50	43	40	32	22
None of the cost	50	39	47	52	50	45	47	35	40	47	49	53	60
No response	3	5	5	4	5	4	6	2	3	3	3	7	12
	$\chi^2 = \Phi = 0$	30.13					6.24, n.s.	$\chi^2 = \phi = 0$		49			

CHM #6		Educa	tion			1	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	to	\$30K to \$50K	to	Over \$75K
All of the cost	7	7	6	7	7	9	6	6	8
Some of the cost	36	42	47	46	36	40	47	51	40
None of the cost	51	47	43	43	51	46	44	41	51
No response	6	4	4	4	6	5	4	2	2
	$\chi^2 = 19.57$ $\phi = 0.09$				$\chi^2 = 26$ $\phi = 0.1$				

Covering Costs of Reproductive Technologies for a Second Child

If a couple already have their own child and need to use reproductive technologies to have a second child, should your provincial health insurance program pay ...

CHM #7			Regio	n		Gei	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34			55- 64	65+
All of the cost	2	10	4	3	4	6	4	5	5	6	6	5	5
Some of the cost	36	42	37	37	35	39	37	49	41	41	36	28	25
None of the cost	58	47	55	57	56	52	55	46	52	51	57	62	59
No response	5	2	3	3	6	3	3	<1	1	3	2	5	10
	$\chi^2 = 0$ $\phi = 0$	55.66 .15					7.26, n.s.	$\chi^2 = \phi = 0$		9			

CHM #7		Educa	tion			l	ncome	come		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K	
All of the cost	6	6	5	5	5	8	4	4	5	
Some of the cost	38	34	42	39	34	33	40	44	38	
None of the cost	52	57	51	54	55	56	54	50	55	
No response	4	3	2	3	6	3	2	2	2	
	$\chi^2 = 8.96,$	n.s.			$\chi^2 = 22$ $\phi = 0.1$					

Availability/Accessibility of Reproductive Technologies

Apart from who pays, what should your provincial government do about making reproductive technologies available? Should the technologies ...

CHM #6			Regio	n		Gei	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24	25- 34		45- 54	55- 64	65+
Be available across the province	37	38	47	36	41	39	43	48	46	37	42	40	31
Be available only in a few specialized clinics	46	49	43	53	48	49	45	47	49	56	47	42	33
Not be available at all in the province	11	9	5	7	6	7	7	5	3	4	7	10	19
No response	6	5	5	5	5	5	5	1	2	3	4	7	16
	$\chi^2 = \phi = 0$	32.38					4.54, n.s.		157. 0.25	.68			

CHM #6		Educat	tion			ı	ncome		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over
Be available across the province	43	46	41	35	46	43	41	40	30
Be available only in a few specialized clinics	37	44	52	58	36	44	51	52	66
Not be available at all in the province	12	6	4	4	11	8	5	5	3
No response	7	4	3	3	7	6	4	3	2
	$\chi^2 = 93.73$ $\phi = 0.19$				$\chi^2 = 76$ $\phi = 0.1$				

Availability/Accessibility of Reproductive Technologies

Apart from who pays, what should your provincial government do about making reproductive technologies available? Should the technologies ...

CHM #7			Regi	on		Ger	nder			A	lge		
	Atl.	Que.	Ont.	Prairies	вс	М	F		25- 34		45- 54		65+
Be available across the province	40	32	37	32	37	34	36	44	36	32	38	35	27
Be available only in a few specialized clinics	44	53	51	56	54	53	51	51	58	58	50	47	38
Not be available at all in the province	11	12	8	9	6	10	9	3	5	7	10	13	23
No response	5	3	4	4	4	3	4	1	1	3	2	5	12
	$\chi^2 = 0$ $\phi = 0$	23.08				1.~	1.95, n.s.		= 163 0.25				

CHM #7		Educa	tion			ı	ncome		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Be available across the province	41	37	33	28	36	36	37	33	28
Be available only in a few specialized clinics	39	50	57	64	45	49	52	61	66
Not be available at all in the province	14	9	8	6	13	11	8	5	4
No response	6	4	1	2	6	4	2	1	2
	$\chi^2 = 94.15$ $\phi = 0.19$				$\chi^2 = 54$ $\phi = 0.1$				

Who Should Be Allowed to Adopt

I would like to ask you about adopting children. If a couple discovered they could not conceive a child together but wanted one, would you strongly agree, somewhat agree, somewhat disagree or strongly disagree with that couple's decision to adopt a child?

CHM #6			Regio	n		Ger	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Strongly agree	90	91	88	91	93	88	91	90	91	92	92	89	85
Somewhat agree	6	7	8	7	4	8	6	8	7	6	7	6	6
Somewhat disagree	0	1	1	<1	1	1	1	1	<1	<1	<1	1	1
Strongly disagree	1	1	1	1	0	1	1	1	<1	1	<1	<1	3
No response	3	1	2	1	1	2	2	0	2	1	1	3	5
	$\chi^2 =$	16.17, 1	n.s.				5.04, n.s.	$\chi^2 =$	0 2 1 1 3 $\chi^2 = 23.94$, n.s.				

CHM #6		Educa	tion			- 1	ncome		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Strongly agree	90	89	91	90	91	89	90	94	93
Somewhat agree	6	8	7	7	6	7	7	5	6
Somewhat disagree	1	1	1	1	<1	1	1	<1	<1
Strongly disagree	1	<1	<1	1	1	1	1	0	<1
No response	2	2	1	1	2	3	2	1	1
	$\chi^2 = 11.24$,	n.s.			$\chi^2 = 11$.94, n.s			

Who Should Be Allowed to Adopt

Would you strongly agree, somewhat agree, somewhat disagree or strongly disagree that a single woman should be allowed to adopt a child?

CHM #6			Regio	on .		Ger	nder			А	ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Strongly agree	53	56	44	47	45	45	52	59	56	52	47	37	34
Somewhat agree	22	23	28	29	31	26	27	28	27	25	28	28	23
Somewhat disagree	7	7	11	8	11	10	8	7	9	9	8	12	11
Strongly disagree	15	13	13	14	9	16	11	6	7	11	16	20	25
No response	4	1	4	2	4	3	2	1	1	3	1	4	7
	$\chi^2 = \phi = 0$	41.53).13				$\chi^2 = 2$ $\phi = 0$		$\chi^2 = \phi = 0$	145. 0.23	74			

CHM #6		Educat	tion			ı	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Strongly agree	47	49	49	50	52	46	48	48	48
Somewhat agree	24	26	27	30	22	25	28	30	30
Somewhat disagree	9	9	11	8	9	8	10	11	8
Strongly disagree	17	14	10	9	15	17	11	10	12
No response	3	2	3	3	3	4	3	1	1
	$\chi^2 = 33.90$ $\phi = 0.11$				$\chi^2 = 22$	2.43, n.s	s.		

Who Should Be Allowed to Adopt

Would you strongly agree, somewhat agree, somewhat disagree or strongly disagree that a single man should be allowed to adopt a child?

CHM #6			Regi	on		Gen	der			1	\ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Strongly agree	39	40	36	41	40	37	40	50	48	46	35	26	19
Somewhat agree	22	26	26	26	29	24	28	31	27	26	31	26	16
Somewhat disagree	14	10	14	12	14	14	12	9	13	11	12	16	14
Strongly disagree	22	22	20	18	13	22	18	9	11	14	21	28	45
No response	3	2	4	3	4	3	3	1	1	3	2	3	7
	$\chi^2 =$	23.22	n.s.			$\chi^2 = 1$ $\phi = 0.0$		$\chi^2 = \phi = 0$		00	12 16 21 28		

CHM #6		Educat	tion			ı	ncome				
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over		
Strongly agree	32	41	40	45	39	36	40	41	40		
Somewhat agree	23	24	28	31	24	24	29	29	30		
Somewhat disagree	13	11	15	11	11	12	12	15	12		
Strongly disagree	28	21	15	12	24	25	16	14	16		
No response	4	3	3	2	3	4	3	2	1		
	$\chi^2 = 88.95$ $\phi = 0.18$				$\chi^2 = 35$ $\phi = 0.1$			12 15 16 14			

Who Should Be Allowed to Adopt

Would you strongly agree, somewhat agree, somewhat disagree or strongly disagree that two lesbian women should be allowed to adopt a child?

CHM #6		Region					nder	Age					
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Strongly agree	16	22	14	16	19	17	17	25	23	20	14	8	8
Somewhat agree	16	19	18	18	20	20	17	25	20	22	19	12	8
Somewhat disagree	11	10	12	10	11	11	11	14	12	13	9	10	7
Strongly disagree	51	46	51	49	44	48	48	35	41	41	55	62	65
No response	6	3	5	7	6	4	6	2	4	4	3	7	12
	$\chi^2 =$	$\chi^2 = 18.72$, n.s.					3.01, n.s.	$\chi^2 = 192.82$ $\phi = 0.27$					

CHM #6		Educat	Income						
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Strongly agree	14	17	17	22	16	15	17	18	22
Somewhat agree	15	18	18	23	15	17	20	22	21
Somewhat disagree	9	9	13	13	9	12	12	14	11
Strongly disagree	55	51	47	38	54	50	45	45	43
No response	6	6	4	4	6	7	6	2	3
	$\chi^2 = 57.23$ $\phi = 0.15$		$\chi^2 = 27.18$ $\phi = 0.11$						

Who Should Be Allowed to Adopt

Would you strongly agree, somewhat agree, somewhat disagree or strongly disagree that two gay men should be allowed to adopt a child?

CHM #6	Region					Gender Age							
	Atl.	Que.	Ont.	Prairies	ВС	M	F	15- 24	25- 34		45- 54	55- 64	65+
Strongly agree	12	18	13	14	18	14	16	22	20	18	12	8	5
Somewhat agree	15	18	15	15	18	16	16	23	19	18	17	10	6
Somewhat disagree	11	11	11	11	13	10	11	14	11	14	10	9	7
Strongly disagree	57	51	57	54	46	55	52	40	47	46	59	66	73
No response	5	3	5	6	5	4	5	2	4	4	2	. 7	9
	$\chi^2 = 23.65$, n.s.						3.18, n.s.	$\chi^2 = \phi = 0$		52			

CHM #6	Education					Income						
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K			
Strongly agree	11	14	15	21	13	13	15	15	20			
Somewhat agree	13	16	16	20	13	15	17	19	18			
Somewhat disagree	10	10	12	13	10	12	12	13	11			
Strongly disagree	61	56	53	42	59	54	50	52	47			
No response	6	5	4	4	4	7	5	1	4			
	$\chi^2 = 69.29$ $\phi = 0.16$				$\chi^2 = 21$.56, n.s						

Who Should Be Allowed to Adopt

Would you strongly agree, somewhat agree, somewhat disagree or strongly disagree that a couple should be allowed to adopt a child of a different colour or race?

CHM #6			Regio	n		Ger	nder			A	ge		
	Ati.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34	35- 44		55- 64	65+
Strongly agree	79	86	77	79	79	80	80	87	85	80	78	79	69
Somewhat agree	12	8	15	13	15	13	13	7	11	14	16	11	15
Somewhat disagree	2	2	3	3	1	2	3	3	1	2	2	4	4
Strongly disagree	3	3	3	2	1	3	2	2	1	1	2	3	6
No response	4	2	2	3	3	2	2	1	2	3	2	3	6
	$\chi^2 = 33.86$ $\phi = 0.11$					2.27, n.s.		76.2 0.17	6				

CHM #6		Educa	tion			In	come		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	to	\$30K to \$50K	to	Over \$75K
Strongly agree	78	79	82	82	82	81	81	81	85
Somewhat agree	12	. 12	14	13	9	12	13	13	13
Somewhat disagree	3	4	1	2	3	2	2	3	1
Strongly disagree	4	2	2	2	4	3	2	2	0
No response	3	3	2	1	2	3	2	1	1
	$\chi^2 = 31.55$ $\phi = 0.11$		$\chi^2 = 20$ $\phi = 0.0$						

Perceived Wait (Delay) to Adopt

How long do you think a Canadian couple has to wait to adopt each of the following children?

A Canadian-born infant

CHM #6			Reg	ion		Gen	der			A	ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Less than 1 year	14	14	17	12	16	21	10	26	14	11	16	13	13
1 to 2 years	23	20	23	19	19	26	17	26	23	23	20	15	15
3 to 4 years	21	13	19	20	22	15	21	18	19	20	22	15	14
5 to 10 years	24	27	21	28	17	15	31	16	31	28	27	21	11
No response	19	27	20	21	25	24	21	15	13	18	15	36	47
	1	: 38.72 0.14	2			$\chi^2 = 17$ $\phi = 0.2$		$\chi^2 = \phi = 0$	71. 51 0.18	1			

CHM #6		Educa	tion			ı	ncome		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Less than 1 year	17	17	12	12	14	14	15	14	14
1 to 2 years	20	23	23	19	21	24	21	23	19
3 to 4 years	14	16	21	23	17	17	19	17	24
5 to 10 years	17	22	27	31	18	24	26	28	28
No response	32	23	17	15	30	22	19	17	15
	$\chi^2 = 51.72$ $\phi = 0.16$					i.17, n.s			

Perceived Wait (Delay) to Adopt

How long do you think a Canadian couple has to wait to adopt each of the following children?

A Canadian-born toddler, 2-4 years old

CHM #6			Regio	n		Gen	der			F	lge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24			45- 54	55- 64	65+
Less than 1 year	16	16	24	19	23	26	15	31	21	18	22	17	13
1 to 2 years	29	19	24	26	23	25	23	24	27	29	21	19	17
3 to 4 years	22	18	19	21	18	14	24	20	25	20	24	14	11
5 to 10 years	8	15	8	8	6	6	12	6	12	12	10	9	4
No response	25	32	24	26	30	29	26	18	16	22	23	42	54
	12			$\chi^2 = 10$ $\phi = 0.2$	$\chi^2 = 44.12$ $\phi = 0.15$								

CHM #6		Educa	tion			I	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Less than 1 year	20	22	21	18	19	19	22	21	21
1 to 2 years	21	24	25	26	20	23	24	27	32
3 to 4 years	16	17	23	24	19	18	20	21	21
5 to 10 years	7	10	10	12	7	12	11	10	9
No response	37	27	21	20	35	27	23	21	18
	$\chi^2 = 20.72$, n.s.		$\chi^2 = 11.41$, n.s.					

Perceived Wait (Delay) to Adopt

How long do you think a Canadian couple has to wait to adopt each of the following children?

A Canadian-born school-age child who has special needs because they are disabled physically or mentally

CHM #6			Regio	n		Gei	nder			Age			
	Atl.				М	F	15- 24	25- 34		45- 54	55- 64	65+	
Less than 1 year	42	24	41	41	41	37	36	40	38	41	42	34	21
1 to 2 years	21	19	21	19	16	18	20	26	26	18	19	12	12
3 to 4 years	6	9	8	7	6	8	8	8	11	8	6	4	6
5 to 10 years	5	8	4	2	3	4	5	6	5	4	5	5	2
No response	27	41	26	30	34	33	31	19	20	29	28	45	58
	$\chi^2 = 67.34$ $\phi = 0.19$				6.76, n.s.	$\chi^2 = \phi = 0$		5					

CHM #6		Educa	tion			ı	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Less than 1 year	31	33	41	46	31	31	40	41	47
1 to 2 years	15	23	21	20	15	20	22	22	20
3 to 4 years	7	8	10	7	9	10	8	7	5
5 to 10 years	6	5	3	4	4	7	5	4	3
No response	42	32	26	23	41	32	26	25	25
	$\chi^2 = 29.45$ $\phi = 0.13$			$\chi^2 = 28$ $\phi = 0.1$					

Perceived Wait (Delay) to Adopt

How long do you think a Canadian couple has to wait to adopt each of the following children?

An infant born in another country

CHM #6			Regio	n		Ger	nder			Α	ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24	25- 34		45- 54	55- 64	65+
Less than 1 year	34	16	37	36	35	31	30	34	36	34	31	24	18
1 to 2 years	21	26	25	22	24	25	24	30	28	25	22	21	17
3 to 4 years	12	13	8	6	4	8	10	9	11	9	9	6	6
5 to 10 years	4	12	3	3	2	4	6	8	5	5	7	1	3
No response	29	33	28	33	34	33	30	18	20	27	31	48	55
	$\chi^2 = 188.43$ $\phi = 0.32$				$\chi^2 = 6.81$ $\phi = 0.06$ $\chi^2 = 20.02$, n.s.								

CHM #6		Educat	tion			1	ncome				
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K		
Less than 1 year	22	33	34	37	25	29	36	31	37		
1 to 2 years	20	24	25	29	23	24	24	27	31		
3 to 4 years	9	9	10	9	8	11	9	11	6		
5 to 10 years	5	6	5	3	5	8	4	6	3		
No response	44	29	26	22	40	29	26	26	23		
	$\chi^2 = 23.99$ $\phi = 0.11$					$\chi^2 = 26.02$ $\phi = 0.12$					

Expected Strategy When Facing Delays

If you wanted to adopt a Canadian infant and discovered you would have to wait 5 to 10 years, what would you most likely do? (Subsample: Respondents between 21 and 45 years of age.)

CHM #6			Regio	n		Ger	der		Aç	je	
	Atl. (129)	Que. (351)	Ont. (508)	Prairies (266)	BC (174)	M (690)	F (739)	21- 24 (166)	25- 34 (631)	35- 44 (580)	45 (52)
Adopt a baby from another country	30	37	31	25	36	30	34	35	34	30	27
Adopt a Canadian-born school-age child of the same race as you but disabled physically or mentally	8	6	6	8	8	6	8	4	8	6	7
Adopt a Canadian-born child of a different race	18	22	22	27	32	23	24	27	21	25	23
Wait 5 to 10 years to adopt a Canadian infant	23	19	18	16	9	19	16	23	19	13	27
Volunteered: Not adopt	7	8	8	10	6	8	7	5	6	10	11
No response	13	9	15	14	10	14	11	6	13	15	4
	$\chi^2 = 3$ $\phi = 0.$					$\chi^2 = 5$.94, .s.	$\chi^2 = \frac{1}{2}$	17.46,	n.s.	

CHM #6		Edu	cation			-	ncome)	
	Less than high school (254)		Comm. col./voc. (336)	Uni- versity (445)	Less than \$20K (238)	to \$30K	\$30K to \$50K (453)	\$50K to \$75K (252)	Over \$75K (157)
Adopt a baby from another country	26	26	37	37	30	26	33	37	34
Adopt a Canadian-born school-age child of the same race as you but disabled physically or mentally	8	8	6	6	6	9	7	5	5
Adopt a Canadian-born child of a different race	20	21	23	29	28	23	23	21	30
Wait 5 to 10 years to adopt a Canadian infant	20	22	17	12	16	22	16	16	16
Volunteered: Not adopt	10	9	7	6	7	7	8	10	6
No response	16	14	10	11	13	12	12	11	11
	$\chi^2 = 4$ $\phi = 0.1$				$\chi^2 = 19$	9.43, n	.s.		

Five Principles of the Canadian Health Care System

The Canadian health care system is based on five principles developed some years ago. How important do you think it is to keep each of these five principles?

Universality

CHM #6			Regio	n		Ger	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Very important	93	93	92	94	93	92	94	88	96	93	94	94	91
Somewhat important	5	5	6	5	6	7	5	11	3	6	5	5	6
Not very important	0	1	1	0	0	1	<1	<1	<1	<1	<1	1	<1
Not at all important	1	1	<1	<1	<1	1	1	<1	<1	<1	1	<1	2
No response	1	1	1	1	<1	<1	1	1	1	1	<1	<1	1
	$\chi^2 =$	14.02,	n.s.			1	7.17, n.s.		40.3 0.12	6			

CHM #6		Educat	tion			1	ncome		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	to	\$50K to \$75K	Over \$75K
Very important	91	93	96	93	93	94	95	94	90
Somewhat important	7	6	3	6	5	5	5	6	8
Not very important	<1	<1	<1	1	1	<1	<1	<1	<1
Not at all important	1	<1	<1	<1	<1	1	<1	0	1
No response	1	1	1	<1	1	<1	<1	<1	<1
	$\chi^2 = 13.84$, n.s.			$\chi^2 = 10$).97, n.s	S.		

Five Principles of the Canadian Health Care System

The Canadian health care system is based on five principles developed some years ago. How important do you think it is to keep each of these five principles?

Accessibility

CHM #6			Regio	n		Gei	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	M	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Very important	86	92	82	80	84	84	85	80	89	87	87	86	78
Somewhat important	9	6	13	15	12	12	11	19	9	10	11	9	12
Not very important	2	1	2	2	2	2	1	1	1	1	2	2	4
Not at all important	1	<1	1	1	1	1	1	0	1	<1	<1	<1	3
No response	2	1	2	1	1	1	2	1	<1	1	<1	3	3
	$\chi^2 = 0$ $\varphi = 0$	38.39 .12					5.24, n.s.		72.6 0.16	1			

CHM #6		Educa	tion			ı	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	to	\$50K to \$75K	Over \$75K
Very important	85	85	86	84	84	86	87	84	84
Somewhat important	10	12	12	13	11	11	10	14	12
Not very important	2	2	1	2	2	2	2	2	1
Not at all important	1	<1	0	1	1	<1	<1	0	1
No response	2	1	1	1	2	1	1	1	1
	$\chi^2 = 11.17$,	n.s.			$\chi^2 = 10$.32, n.s	;.		

Five Principles of the Canadian Health Care System

The Canadian health care system is based on five principles developed some years ago. How important do you think it is to keep each of these five principles?

Portability

CHM #6			Regio	n		Ger	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Very important	94	92	86	86	89	89	88	88	90	89	89	89	87
Somewhat important	5	5	10	10	9	8	8	11	7	8	8	7	7
Not very important	1	2	2	1	1	1	2	1	2	1	2	1	2
Not at all important	1	1	1	1	<1	1	1	1	<1	1	1	1	2
No response	0	1	1	1	<1	<1	1	<1	<1	1	1	1	2
	$\chi^2 =$	25.30,	n.s.				4.46, n.s.	χ² =	19.4	6, n.s	š.		

CHM #6		Educa	tion				Income		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Very important	89	88	90	88	87	89	90	89	87
Somewhat important	7	8	7	9	8	8	7	9	9
Not very important	2	1	1	2	1	1	2	1	2
Not at all important	1	1	1	1	2	1	1	<1	1
No response	1	1	1	<1	2	1	<1	<1	<1
	$\chi^2 = 6.72$,	n.s.			$\chi^2 = 11$.38, n.s).		

Five Principles of the Canadian Health Care System

The Canadian health care system is based on five principles developed some years ago. How important do you think it is to keep each of these five principles?

Comprehensiveness

CHM #6			Regio	n		Ger	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Very important	90	93	84	84	89	88	88	83	90	87	89	92	87
Somewhat important	8	5	12	13	10	11	9	16	9	11	9	6	8
Not very important	1	0	1	1	<1	1	<1	<1	1	<1	1	1	1
Not at all important	<1	<1	<1	0	0	<1	<1	0	<1	<1	0	<1	0
No response	1	1	3	2	1	1	2	1	1	2	2	2	4
	$\chi^2 = 0$ $\varphi = 0$	43.36 .13					4.62, n.s.	$\chi^2 = \phi = 0$		8			

CHM #6		Educa	tion				Income		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Very important	89	88	90	85	87	89	89	87	85
Somewhat important	7	11	8	13	10	9	9	11	14
Not very important	1	<1	<1	1	1	<1	1	<1	1
Not at all important	0	<1	<1	<1	<1	0	<1	0	0
No response	3	1	1	1	2	1	1	2	1
	$\chi^2 = 23.52$ $\phi = 0.09$				$\chi^2 = 13$	3.25, n.s	i.		

Five Principles of the Canadian Health Care System

The Canadian health care system is based on five principles developed some years ago. How important do you think it is to keep each of these five principles?

Public administration

CHM #6			Regio	n		Gei	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Very important	74	81	72	77	80	77	75	71	78	77	77	79	73
Somewhat important	16	11	18	14	14	16	14	23	16	14	16	11	9
Not very important	2	2	3	3	2	3	2	2	2	3	3	3	3
Not at all important	3	2	2	1	1	2	2	1	2	2	1	2	3
No response	4	4	6	5	3	3	6	3	3	5	2	5	11
	$\chi^2 = 0$ $\phi = 0$	27.10				1	3.14, n.s.	$\chi^2 = \phi = 0$	39.1 0.12	5			

CHM #6		Educa	tion				Income		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Very important	76	75	77	78	78	74	79	75	75
Somewhat important	12	17	16	15	11	16	15	18	15
Not very important	2	2	3	3	1	3	2	3	4
Not at all important	2	1	2	2	2	1	2	<1	4
No response	8	5	2	2	8	6	1	3	2
	$\chi^2 = 11.34,$	n.s.			$\chi^2 = 30$ $\phi = 0.1$				

Five Principles of the Canadian Health Care System

In your opinion, should there be national principles of this kind for health care, or should each province have its own principles?

CHM #6			Regio	n		Gei	nder			Α	ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
National	68	38	72	70	73	64	61	62	65	67	62	61	55
Provincial	27	58	24	25	24	33	33	34	31	30	34	37	37
No response	5	4	4	5	3	3	5	4	4	3	5	2	8
	$\chi^2 = 0$ $\varphi = 0$	268.47 .32					0.34, 1.s.	$\chi^2 =$	11.46	3, n.s.			

CHM #6		Educa	tion				Income		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
National	54	62	64	73	60	56	65	65	69
Provincial	41	35	32	25	34	39	32	32	30
No response	6	4	4	2	6	4	3	3	1
	$\chi^2 = 50.72$ $\phi = 0.14$				$\chi^2 = 11$.37, n.s	.		

Five Principles of the Canadian Health Care System

Would you strongly support, somewhat support, somewhat oppose, or strongly oppose withholding federal government funds from those provinces which do not meet the five principles?

CHM #6			Regio	n		Gen	der			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	M	F	15- 24	25- 34		45- 54	55- 64	65+
Strongly support	36	38	33	28	30	39	29	21	31	38	43	35	34
Somewhat support	19	19	21	22	23	20	22	25	23	23	17	20	14
Somewhat oppose	15	8	15	21	19	12	17	21	17	12	11	14	12
Strongly oppose	23	26	20	20	21	22	21	26	22	19	22	23	22
No response	6	9	10	9	7	6	11	7	7	7	7	8	18
	$\chi^2 = \phi = 0$	58.41).15				$\chi^2 = 3$ $\phi = 0.$		1	72.2 0.17	6			

CHM #6		Educa	tion				Income	,	
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Strongly support	33	28	36	39	32	35	35	37	41
Somewhat support	15	25	22	23	18	20	22	26	17
Somewhat oppose	14	16	15	14	13	14	15	15	14
Strongly oppose	25	22	20	20	26	20	22	17	24
No response	13	9	6	5	11	12	6	6	4
	$\chi^2 = 38.47$ $\phi = 0.12$				$\chi^2 = 23$ $\phi = 0.1$				

Federal and Provincial Responsibilities

Which level of government, federal or provincial, should have primary responsibility for each of the following aspects of health care?

Setting health standards

CHM #6			Regio	n		Gen	der			Α	ge		
	Atl.	Que.	Ont.	Prairies	ВС	M	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Federal	54	32	61	59	61	55	50	53	60	58	54	48	37
Provincial	25	42	22	22	20	29	25	31	22	24	28	31	31
Both	14	19	11	14	15	12	16	13	14	12	15	14	19
No response	7	7	6	5	4	3	9	3	4	6	3	7	14
	$\chi^2 = \phi = 0$	175.37).26				$\chi^2 = 10$ $\varphi = 0.0$		$\chi^2 = \phi = 0$	51.25 0.14	5			

CHM #6		Educa	tion				Income		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Federal	38	53	60	64	44	46	60	60	65
Provincial	31	30	24	22	25	34	25	28	25
Both	18	14	12	12	19	16	12	9	9
No response	13	3	4	2	11	5	3	2	1
	$\chi^2 = 78.81$ $\phi = 0.18$				$\chi^2 = 61$ $\phi = 0.1$				

Federal and Provincial Responsibilities

Which level of government, federal or provincial, should have primary responsibility for each of the following aspects of health care?

Setting health standards

CHM #7			Regio	n		Ger	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Federal	53	27	49	59	60	51	43	45	51	50	45	40	42
Provincial	28	61	38	29	30	40	41	46	38	40	43	42	37
Both	8	7	6	7	6	5	8	2	6	6	8	9	10
No response	12	5	6	5	4	4	8	7	4	4	4	8	11
	$\chi^2 = 0$ $\varphi = 0$	196.56 .28				$\chi^2 = 1$ $\phi = 0$		$\chi^2 = \phi = 0$	37.03).12				

CHM #7		Educa	tion				Income	•	
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Federal	38	45	45	59	39	47	49	53	57
Provincial	43	44	43	34	43	40	40	40	38
Both	8	6	8	5	10	7	6	4	3
No response	11	5	4	3	9	7	4	3	1
	$\chi^2 = 50.83$ $\phi = 0.14$				$\chi^2 = 36$ $\phi = 0.1$				

Federal and Provincial Responsibilities

Which level of government, federal or provincial, should have primary responsibility for each of the following aspects of health care?

Enforcing health standards

СНМ #6			Regi	on		Ger	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	M	F	15- 24	25- 34		45- 54	55- 64	65+
Federal	41	27	49	44	47	45	38	42	43	45	45	36	33
Provincial	37	47	32	37	30	38	36	40	38	34	36	40	36
Both	15	19	12	15	17	13	17	14	14	14	15	16	17
No response	7	8	7	5	6	3	10	4	4	7	4	8	15
	$\chi^2 = \phi = 0$	96.26).19				$\chi^2 = 0$ $\phi = 0$	14.04 .07	$\chi^2 = \phi = 0$		5			

CHM #6		Educa	tion				Income		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Federal	33	43	47	46	36	37	47	45	45
Provincial	34	39	35	40	33	40	37	41	45
Both	19	14	15	12	19	16	13	10	9
No response	14	4	4	2	12	7	4	4	1
	$\chi^2 = 33.48$ $\phi = 0.11$				$\chi^2 = 39$ $\phi = 0.1$				

Federal and Provincial Responsibilities

Which level of government, federal or provincial, should have primary responsibility for each of the following aspects of health care?

Enforcing health standards

CHM #7			Regio	n		Gen	der			Α	ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34		45- 54	55- 64	65+
Federal	37	24	39	47	43	40	34	35	43	36	38	35	31
Provincial	42	63	47	39	41	49	48	54	46	52	48	46	44
Both	6	7	7	8	10	6	9	3	7	8	9	9	9
No response	14	6	8	6	6	6	9	8	5	4	5	10	15
	$\chi^2 = \phi = 0$	96.36).20				$\chi^2 = 1$ $\phi = 0.$		$\chi^2 = \phi =$	27.1° 0.10	7			

CHM #7		Educa	tion			Ir	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over
Federal	34	39	35	38	30	41	39	38	41
Provincial	43	47	52	53	48	44	48	53	53
Both	9	7	8	6	10	7	8	6	5
No response	13	7	5	3	12	8	6	3	1
	$\chi^2 = 12.27,$	n.s.			$\chi^2 = 21$ $\phi = 0.10$				

Federal and Provincial Responsibilities

Which level of government, federal or provincial, should have primary responsibility for each of the following aspects of health care?

Delivering health care services

CHM #6			Regi	on		Ger	nder			Ag	je		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34	35- 44		55- 64	65+
Federal	31	21	31	24	29	28	26	26	30	29	28	25	20
Provincial	43	51	49	55	50	54	47	56	52	48	49	52	48
Both	19	20	13	16	16	14	18	14	15	16	20	15	19
No response	7	8	7	5	5	3	9	3	4	7	4	8	14
	$\chi^2 = \phi = 0$	37.44				$\chi^2 = \phi = 0$	12.44 .07	$\chi^2 =$ n.s.	19.09	9,			

CHM #6		school graduate col./voc. vers 25 28 31 25 41 53 49 60 20 15 16 13					Income		
	high	school		Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Federal	25	28	31	25	25	24	31	25	30
Provincial	41	53	49	60	44	51	52	60	58
Both	20	15	16	13	20	19	14	11	9
No response	14	4	4	2	11	6	4	4	3
	$\chi^2 = 39.47$ $\phi = 0.12$				$\chi^2 = 44$ $\phi = 0.1$				

Federal and Provincial Responsibilities

Which level of government, federal or provincial, should have primary responsibility for each of the following aspects of health care?

Delivering health care services

CHM #7			Reg	ion		Ger	nder			A	\ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Federal	26	19	23	23	23	22	22	22	25	22	21	23	20
Provincial	50	66	62	61	62	65	59	66	63	64	62	58	55
Both	13	9	8	10	10	8	11	5	8	10	12	11	13
No response	12	6	7	5	. 5	5	8	7	5	4	5	8	13
	$\chi^2 =$	$\chi^2 = 18.76$, n.s.						$\chi^{2} = 24.61$ $\phi = 0.10$					

CHM #7		Educa	tion			Ir	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	to	\$30K to \$50K	to	Over \$75K
Federal	25	23	22	18	22	26	22	21	17
Provincial	49	63	64	72	54	57	65	68	78
Both	13	8	9	7	14	10	8	8	4
No response	12	6	4	2	10	7	4	3	1
	$\chi^2 = 54.96$ $\phi = 0.15$	$\chi^2 = 48$ $\phi = 0.14$							

Special Charter to Guarantee Health Services

In your opinion, do Canadians need a special charter of health to guarantee our right to health services, or can we rely on federal and provincial legislation to ensure our right to health services?

CHM #6			Regio	n		Ger	nder			Α	ge		
	Atl.	Que.	Ont.	Prairies	вс	M	F	15- 24	25- 34				65+
Special charter	36	34	39	39	46	39	38	38	44	42	40	34	28
Provincial legislation	54	58	51	50	44	54	51	54	49	52	53	53	54
No response	10	8	9	11	10	7	11	8	7	6	7	13	18
	$\chi^2 = \phi = 0$						0.14, n.s.	$\chi^2 = \phi = 0$		1			

CHM #6		Educa	tion				Income		
4	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Special charter	33	42	41	40	37	37	44	40	31
Provincial legislation	52	49	54	55	50	51	49	54	66
No response	15	9	5	5	13	12	7	5	3
	$\chi^2 = 7.52,$	15 9 5 $\chi^2 = 7.52$, n.s.				3.37 9			

Providing Good Health Care: Performance of Government

Is the federal government doing an excellent, good, fair or poor job ensuring that Canadians get good health care?

Federal government

CHM #7			Regio	on		Ger	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	вс	M	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Excellent	3	6	8	7	2	6	6	5	6	6	7	7	7
Good	49	48	40	46	43	43	46	51	44	42	43	44	43
Fair	31	31	28	30	29	30	29	34	33	33	24	21	23
Poor	13	10	19	15	21	17	14	9	13	15	20	22	19
No response	4	5	5	2	5	4	5	2	3	3	6	6	9
	$\chi^2 = 0$ $\varphi = 0$					$\chi^2 = 5$	5.50, .s.	$\chi^2 = \phi = 0$	58.40 0.15)			

CHM #7		Educa	tion				Income	ie		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K	
Excellent	5	6	6	7	6	5	6	8	7	
Good	46	43	47	43	46	43	43	44	49	
Fair	31	30	30	28	26	31	34	28	25	
Poor	13	18	13	18	16	16	14	17	14	
No response	5	4	4	4	5	5	3	4	5	
	$\chi^2 = 16.21$	$\chi^2 = 17$	'.46, n.s	i.						

Providing Good Health Care: Performance of Government

Is the provincial government doing an excellent, good, fair or poor job ensuring that people get good health care?

Provincial government

CHM #7			Regio	n		Gen	der			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Excellent	4	7	8	10	5	7	7	7	8	6	7	8	10
Good	56	61	49	57	51	55	54	55	52	52	57	58	57
Fair	31	. 26	28	23	30	27	27	31	30	30	24	22	20
Poor	7	6	10	7	9	8	8	4	7	10	9	8	8
No response	3	1	5	2	5	3	4	3	3	3	3	4	5
	$ \begin{cases} \chi^2 = 3 \\ \phi = 0 \end{cases} $					$\chi^2 = 0$).05, .s.	$\chi^2 = \phi = 0$	38.19 0.12	9			

CHM #7		Educa	tion				Income		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Excellent	7	8	8	7	7	6	8	9	8
Good	55	50	57	55	58	53	52	55	56
Fair	25	29	27	27	21	32	30	27	23
Poor	8	9	6	8	9	6	7	8	11
No response	5	3	3	2	5	3	2	1	2
	$\chi^2 = 9.49$,		$\chi^2 = 28$ $\phi = 0.1$						

Health Care: Level of Provincial Spending

Your provincial government currently spends about a third of its total budget on health care. Do you feel that this is ...

CHM #7			Regi	on		Gen	der			A	lge		
	Atl.	Que.	Ont.	Prairies	вс	M	F	1			45- 54		65+
Too much	10	21	17	14	7	20	12	10	13	19	18	21	15
Too little	25	29	18	21	31	19	27	26	26	25	22	16	21
About right	57	46	55	57	54	55	51	60	55	50	52	49	49
No response	7	4	10	8	9	6	10	4	5	6	8	13	15
	$\chi^2 = \phi = 0$	72.64).17				$\chi^2 = 4$ $\phi = 0.$		$\chi^2 = 36.05$ $\phi = 0.12$					

CHM #7		Educa	tion				Income		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Too much	13	13	16	22	12	16	14	19	22
Too little	28	27	21	17	33	25	23	17	12
About right	50	53	56	54	46	51	56	60	58
No response	9	7	6	8	9	8	7	5	7
					$\chi^2 = 70$ $\phi = 0.1$				

Health Care: Cost and Related Issues

Thinking about health care costs, do you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements:

Your provincial government is doing a good job of controlling health care costs

CHM #7			Regio	n		Ger	nder			F	ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F		25- 34	35- 44	45- 54	55- 64	65+
Strongly agree	22	20	13	19	15	17	17	18	15	12	14	20	28
Somewhat agree	47	31	32	42	46	37	36	44	38	38	32	31	34
Somewhat disagree	16	19	23	20	17	21	20	18	23	22	19	23	13
Strongly disagree	13	28	24	14	14	21	22	15	20	25	28	21	17
No response	2	2	7	5	7	5	5	5	4	3	7	6	8
	$\chi^2 = 1$ $\phi = 0.$					1.7	0.76, n.s.	,,,	= 92. 0.19				

CHM #7		Educat	tion				Income)	
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Strongly agree	22	16	14	14	25	16	17	11	12
Somewhat agree	36	38	37	36	36	39	35	40	35
Somewhat disagree	19	19	21	22	17	23	20	22	22
Strongly disagree	16	21	24	24	17	19	23	25	27
No response	7	6	4	3	6	5	5	2	3
	$\chi^2 = 35.47$ $\phi = 0.12$				$\chi^2 = 55$ $\phi = 0.1$				

Health Care: Cost and Related Issues

Thinking about health care costs, do you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements:

Hospitals do not manage their finances economically

CHM #7			Regio	n		Gei	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	M	F	15- 24	25- 34	35- 44		55- 64	65+
Strongly agree	16	29	26	17	20	23	24	19	23	26	25	25	21
Somewhat agree	32	31	30	29	26	30	30	35	31	26	30	29	29
Somewhat disagree	19	13	17	24	24	19	17	18	18	20	17	19	16
Strongly disagree	15	11	9	12	12	13	10	12	12	13	11	8	8
No response	18	15	18	18	19	15	20	16	16	15	17	19	26
	$\chi^2 = \phi = 0$	63.76 .17					5.84, n.s.	$\chi^2 =$	20.7	2, n.s	S.		

CHM #7		Educa	tion				Income		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Strongly agree	21	24	25	24	23	22	24	29	19
Somewhat agree	31	28	29	31	33	29	27	29	33
Somewhat disagree	18	16	20	19	15	16	21	19	22
Strongly disagree	9	12	12	11	9	12	11	12	16
No response	21	20	14	15	20	21	17	11	10
	$\chi^2 = 8.43$, (n.s.			$\chi^2 = 25$.39, n.s	'e		

Health Care: Cost and Related Issues

Thinking about health care costs, do you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements:

Many people in hospital could be looked after at home equally well

CHM #7			Regio	n		Gei	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34		45- 54	55- 64	65+
Strongly agree	24	48	31	29	29	35	33	28	35	33	38	39	34
Somewhat agree	42	30	36	37	36	36	34	38	35	37	33	34	35
Somewhat disagree	14	10	15	16	20	14	15	18	15	13	13	12	16
Strongly disagree	16	11	11	12	9	10	12	13	12	12	13	9	7
No response	5	1	6	5	7	5	5	4	4	5	4	6	8
	$\chi^2 = 0$ $\varphi = 0$						4.45, n.s.	χ ² =	26.1	3, n.s	12 13 9		

CHM #7		Educa	tion						
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Strongly agree	32	34	36	35	35	36	33	35	37
Somewhat agree	38	35	33	34	34	36	35	37	30
Somewhat disagree	14	14	14	15	16	13	14	14	19
Strongly disagree	12	11	11	11	10	12	14	9	10
No response	5	5	5	4	4	4	4	4	5
	$\chi^2 = 5.08$,	n.s.			$\chi^2 = 17$	'.12, n.s	3.		

Health Care: Cost and Related Issues

Thinking about health care costs, do you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements:

Many people use health services they do not need

CHM #7			Regio	n		Ger	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Strongly agree	57	63	53	55	54	58	56	47	56	58	62	59	59
Somewhat agree	28	23	29	29	26	27	27	34	27	27	23	24	25
Somewhat disagree	4	7	7	8	10	7	8	9	8	7	7	6	6
Strongly disagree	9	6	6	6	7	6	6	8	7	7	4	6	4
No response	2	1	5	3	3	3	3	2	2	1	4	5	6
	$\chi^2 =$	24.29,	n.s.				1.32, n.s.	1	$\chi^2 = 31.77$ $\phi = 0.11$				

CHM #7		Educat	tion				Income		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Strongly agree	56	58	55	57	54	57	57	61	60
Somewhat agree	24	27	32	25	25	27	27	26	24
Somewhat disagree	7	6	6	10	9	4	8	7	8
Strongly disagree	7	6	5	6	8	9	5	4	6
No response	4	3	2	2	4	3	2	2	3
	$\chi^2 = 20.35$		$\chi^2 = 27$ $\phi = 0.1$						

Health Care: Cost and Related Issues

Thinking about health care costs, do you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements:

Doctors often prescribe unnecessary medicine to their patients

CHM #7			Regio	n		Gene	der			Α	ge		
	Atl.	Que.	Ont.	Prairies	ВС	M	F	15- 24	25- 34	35- 44		55- 64	65+
Strongly agree	33	54	38	37	36	40	42	34	43	44	45	44	36
Somewhat agree	38	25	27	32	31	29	29	34	32	27	27	28	26
Somewhat disagree	11	7	15	15	15	13	12	14	12	15	10	10	12
Strongly disagree	10	11	11	10	12	11	10	14	9	10	12	10	9
No response	8	3	9	8	6	7	7	3	5	5	6	8	17
	$\chi^2 = 0$ $\phi = 0$	76.86 .17					.86, s.	$\chi^2 = 27.74$, n.s.					

CHM #7		Educat	tion				Income		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Strongly agree	43	44	41	38	43	48	41	40	34
Somewhat agree	24	27	34	31,	27	24	30	33	30
Somewhat disagree	11	13	12	14	12	12	12	14	15
Strongly disagree	12	9	9	12	8	11	11	8	14
No response	9	7	5	6	9	6	5	5	7
	$\chi^2 = 23.87$ $\phi = 0.10$				$\chi^2 = 26$ $\phi = 0.1$				

Health Care: Cost and Related Issues

Thinking about health care costs, do you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements:

Doctors should not prescribe extensive treatments for people who will die soon anyway

CHM #7			Regio	on		Gen	der			Ą	ge		
	Atl.	Que.	Ont.	Prairies	вс	M	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Strongly agree	14	24	16	10	12	17	15	12	13	14	18	25	23
Somewhat agree	17	27	19	25	20	25	19	21	21	23	23	21	22
Somewhat disagree	19	14	18	20	24	17	19	16	22	18	18	16	15
Strongly disagree	41	29	35	35	34	31	37	45	36	36	32	24	25
No response	10	6	12	10	10	10	10	6	8	9	10	14	14
	/~	78.58 0.18				$\chi^2 = 21$ $\phi = 0.0$		$\chi^2 = \phi = 0$	76.63).18				

CHM #7		Educat	tion			lr	ncome				
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K		
Strongly agree	17	18	14	16	19	17	16	16	13		
Somewhat agree	21	19	27	22	18	23	22	25	27		
Somewhat disagree	17	19	17	19	20	17	17	20	21		
Strongly disagree	34	33	33	35	33	33	37	32	32		
No response	11	10	8	9	10	11	8	7	8		
	$\chi^2 = 14.03$	n.s.			$\chi^2 = 19$.06, n.s	3.	37 32 3			

Health Care: Alternative Methods of Payment

Keeping in mind that right now all Canadians are entitled to health services without charge, please tell me if you would strongly approve, somewhat approve, somewhat disapprove, or strongly disapprove of the various ways to raise money to pay for health care costs:

Hospitals charge patients a user fee

CHM #6			Regio	on		Ge	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34	35- 44	45- 54	55- 64	65+
Strongly approve	20	18	16	17	20	19	16	13	13	20	23	17	20
Somewhat approve	28	25	25	29	30	26	27	30	27	23	23	31	27
Somewhat disapprove	15	10	16	14	19	13	16	18	17	14	12	10	12
Strongly disapprove	35	45	40	37	30	40	39	36	41	41	40	39	37
No response	2	2	3	2	3	2	3	2	2	2	1	3	5
	$\chi^2 = 3$ $\phi = 0$					$\chi^2 =$	8.09, n.s.	$\chi^2 = \phi = 0$	47.59 0.13				

CHM #6		Educat	tion				Income	•	
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over
Strongly approve	16	16	18	20	14	14	17	18	33
Somewhat approve	24	27	30	27	23	30	30	27	22
Somewhat disapprove	14	15	12	16	12	12	14	15	14
Strongly disapprove	43	40	39	35	48	42	37	37	30
No response	3	2	1	2	3	2	1	2	1
	$\chi^2 = 18.32,$	n.s.			$\chi^2 = 74$ $\phi = 0.3$			to to 50K \$75K \$17 18 30 27 14 15 37 37	

Health Care: Alternative Methods of Payment

Keeping in mind that right now all Canadians are entitled to health services without charge, please tell me if you would strongly approve, somewhat approve, somewhat disapprove, or strongly disapprove of the various ways to raise money to pay for health care costs:

Doctors extra bill patients

CHM #6			Regio	n		Gei	nder			Α	ge		
	Atl.	Que.	Ont.	Prairies	вс	M	F	15- 24	25- 34		45- 54	55- 64	65+
Strongly approve	6	6	7	7	3	7	5	4	5	7	7	7	8
Somewhat approve	16	14	15	16	12	13	15	14	15	15	15	16	11
Somewhat disapprove	12	10	17	19	21	15	15	22	15	14	13	13	16
Strongly disapprove	65	69	59	56	61	62	61	57	64	62	65	62	60
No response	1	2	3	3	3	2	3	2	1	2	1	2	5
	$\chi^2 = \phi = 0$	46.42).13					6.53, n.s.	$\chi^2 =$	28.8	1, n.:	s.		

CHM #6		Educat	tion			Ir	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Strongly approve	5	5	7	8	5	3	6	8	12
Somewhat approve	11	14	16	18	10	15	17	17	15
Somewhat disapprove	15	15	17	16	11	16	15	17	14
Strongly disapprove	66	64	60	56	71	64	62	58	57
No response	3	2	1	2	3	2	1	1	2
	$\chi^2 = 29.24$ $\phi = 0.10$				$\chi^2 = 53$ $\phi = 0.1$				

Health Care: Alternative Methods of Payment

Keeping in mind that right now all Canadians are entitled to health services without charge, please tell me if you would strongly approve, somewhat approve, somewhat disapprove, or strongly disapprove of the various ways to raise money to pay for health care costs:

All Canadians, including you, pay higher taxes

CHM #6			Regio	n		Ger	nder			A	10 11 10 21 21 21 10 9 7		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34	35- 44			65+
Strongly approve	10	8	9	9	15	12	8	6	7	10	11	10	15
Somewhat approve	19	16	20	25	28	24	18	17	22	21	21	21	21
Somewhat disapprove	11	7	11	12	10	9	11	18	9	10	9	7	9
Strongly disapprove	59	67	57	52	46	53	61	57	61	57	58	60	50
No response	1	2	2	2	1	1	2	2	1	1	1	2	4
	$\chi^2 = 0$ $\varphi = 0$	62.23 .15				$\chi^2 = 3$ $\phi = 0$	32.99	$\chi^2 = \phi = 0$		2	10 9 7 57 58 60		

CHM #6		Educat	tion			Ir	ncome		
	Less than high school	High school graduate	Comm. col./voc.	Uni- versity	Less than \$20K	\$20K to \$30K	to	\$50K to \$75K	Over \$75K
Strongly approve	10	9	7	13	12	9	8	11	13
Somewhat approve	17	20	21	26	20	18	23	23	19
Somewhat disapprove	10	10	9	12	8	11	9	12	11
Strongly disapprove	62	59	62	47	57	61	58	54	57
No response	2	1	1	2	3	1	1	1	1
	$\chi^2 = 47.39$ $\phi = 0.13$				$\chi^2 = 19$.68, n.s	•		

Health Care: Alternative Methods of Payment

Keeping in mind that right now all Canadians are entitled to health services without charge, please tell me if you would strongly approve, somewhat approve, somewhat disapprove, or strongly disapprove of the various ways to raise money to pay for health care costs:

People pay extra only if they use more than a certain amount of health services

CHM #6			Regio	n		Ger	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	ВС	М	F	15- 24	25- 34	35- 44		55- 64	65+
Strongly approve	31	36	24	30	18	30	27	29	27	29	32	27	24
Somewhat approve	29	23	27	29	30	28	27	31	33	22	22	28	26
Somewhat disapprove	10	9	13	9	15	11	12	12	13	9	12	10	9
Strongly disapprove	26	28	32	29	33	29	31	26	25	37	31	32	32
No response	3	3	4	3	3	3	4	2	2	2	3	3	9
	$\chi^2 = \phi = 0$	57.46).15				1 ' '	3.80, n.s.		47.3 0.13	2			

CHM #6		Educat	tion			lr	ncome				
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	to	Over \$75K		
Strongly approve	25	26	31	32	26	30	29	29	37		
Somewhat approve	26	29	26	27	27	28	29	26	24		
Somewhat disapprove	11	9	13	12	10	10	11	11	10		
Strongly disapprove	32	33	27	28	32	29	29	32	27		
No response	5	2	2	2	4	4	2	2	2		
	$\chi^2 = 19.93$	n.s.			$\chi^2 = 12$	2.51, n.s),	29 29 26 11 11 29 32			

Cost and the Role of Doctors in Decisions to Withhold Treatment

All provincial governments are under pressure to control health care costs. Often the doctor has a hard time deciding what kind of treatment to give someone who will die whether or not they receive the treatment. Keeping in mind the costs of health care and also the rights of Canadians to receive health care, would you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with your doctor making the following difficult decisions:

Not to carry out expensive surgery on someone who will die soon whether or not they have the surgery

CHM #7			Regio	n		Ger	nder			A	ge		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24	25- 34		45- 54		65+
Strongly agree	19	29	24	20	25	25	23	15	20	24	25	34	33
Somewhat agree	30	30	27	31	28	29	29	36	34	27	26	25	24
Somewhat disagree	19	13	15	17	20	16	15	19	18	15	16	11	13
Strongly disagree	24	25	25	23	16	22	25	27	22	28	24	18	17
No response	8	3	9	10	11	8	8	3	7	7	8	13	14
	$\chi^2 = 0$ $\phi = 0$	31.85).11					4.18, n.s.	1.0	87.9 0.19	7	24 18		

CHM #7		Educat	tion			lr	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Strongly agree	27	23	22	25	28	22	26	24	24
Somewhat agree	26	29	31	30	28	32	26	31	33
Somewhat disagree	16	15	18	14	12	16	17	16	13
Strongly disagree	23	24	22	24	25	22	23	22	23
No response	9	8	7	7	7	7	8	7	7
	26 29 31 16 15 18 23 24 22				$\chi^2 = 18$.25, n.s			

Cost and the Role of Doctors in Decisions to Withhold Treatment

All provincial governments are under pressure to control health care costs. Often the doctor has a hard time deciding what kind of treatment to give someone who will die whether or not they receive the treatment. Keeping in mind the costs of health care and also the rights of Canadians to receive health care, would you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with your doctor making the following difficult decisions:

To place someone who will die soon in regular hospital care rather than in the most expensive intensive care unit in the hospital

CHM #7			Regio	n		Gen	der			A	ge	45- 55- 54 64 65 34 32 3 28 29 2 12 14 1 19 13 1		
	Atl.	Que.	Ont.	Prairies	вс	М	F	15- 24		35- 44			65+	
Strongly agree	24	32	28	31	28	31	28	22	28	30	34	32	31	
Somewhat agree	31	28	33	34	32	33	30	38	35	32	28	29	22	
Somewhat disagree	11	15	13	13	16	13	14	17	14	13	12	14	12	
Strongly disagree	21	19	16	16	11	15	19	19	16	18	19	13	15	
No response	13	5	10	6	13	8	10	4	6	7	8	13	20	
	$\chi^2 = 23$	3.30, n.	s.			$\chi^2 = 10$ n.	0.86, s.	1	36.1 0.12					

CHM #7		Educat	tion			Ir	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	to	\$50K to \$75K	Over \$75K
Strongly agree	31	29	26	30	29	30	32	31	28
Somewhat agree	29	32	34	32	27	33	32	33	37
Somewhat disagree	12	13	17	13	13	14	13	14	12
Strongly disagree	17	16	15	18	19	17	16	16	17
No response	11	10	8	7	13	6	7	6	6
	$\chi^2 = 13.02,$	n.s.		$\chi^2 = 9.9$	57, n.s.				

Cost and the Role of Doctors in Decisions to Withhold Treatment

All provincial governments are under pressure to control health care costs. Often the doctor has a hard time deciding what kind of treatment to give someone who will die whether or not they receive the treatment. Keeping in mind the costs of health care and also the rights of Canadians to receive health care, would you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with your doctor making the following difficult decisions:

To stop treating someone who has cancer which cannot be cured

CHM #7			Regi	on		Gen	der			1	\ge		
	Atl.	Que.	Ont.	Prairies	вс	M	F	15- 24			45- 54	55- 64	65+
Strongly agree	15	33	20	20	28	27	21	17	20	24	28	30	30
Somewhat agree	23	26	19	21	20	22	21	22	23	22	19	22	20
Somewhat disagree	13	13	18	20	15	16	16	21	18	14	16	15	12
Strongly disagree	38	24	33	30	31	27	33	35	34	32	27	23	23
No response	10	5	11	9	7	8	9	4	6	8	9	10	16
	$\chi^2 = 0$ $\phi = 0$					$\chi^2 = 10$ $\phi = 0.0$			56.0 0.15				

CHM #7		Educa	tion			li	ncome		
	Less than high school	High school graduate	Comm.	Uni- versity	Less than \$20K	\$20K to \$30K	\$30K to \$50K	\$50K to \$75K	Over \$75K
Strongly agree	26	26	20	23	24	23	25	25	24
Somewhat agree	21	19	27	20	20	24	22	22	20
Somewhat disagree	15	15	17	17	14	15	16	17	19
Strongly disagree	30	32	28	31	33	31	30	28	30
No response	8	8	7	9	10	6	7	7	7
	$\chi^2 = 20.08$,	n.s.			$\chi^2 = 8.3$	2, n.s.			

Notes

This paper presents a subset of findings from a larger questionnaire. A complete copy of the survey is available at the National Archives.

- 1. Both CHM #6 and CHM #7 were also used to identify samples of women 18 to 44 years old who, at the time of the survey, were married or cohabiting with a male partner. These women were asked a series of questions designed to assist the Commission in generating point-prevalence estimates of infertility for Canadian couples. Because of the relatively strict criteria for participation in the "infertility survey" and the expected low occurrence rate of infertility among couples, use of the CHM studies was considered a particularly cost-effective method for the identification/screening of participants. For a complete review of the methodology and results for the Commission's infertility survey, see C.S. Dulberg and T. Stephens, "The Prevalence of Infertility in Canada, 1991-1992: Analysis of Three National Surveys," in *The Prevalence of Infertility in Canada*, vol. 6 of the research studies of the Royal Commission on New Reproductive Technologies (Ottawa: Minister of Supply and Services Canada, 1993).
- 2. Due to technical difficulties in recording the number of calls made during the first half of its administration, an accurate response rate for CHM #6 was not available. The response rate for CHM #7 was reported as 32.2% (see Appendix 1, Table 1C). Review of the response rates for previous CHM studies suggests that the rate observed for CHM #7 is representative of CHM surveys in general. The rate of response for these surveys is typical of national surveys of this nature and represents a potential limitation of the research. Whether a systematic bias was introduced (and the form this bias might take) is unknown. This being said, given the relatively general nature of the introduction to this study, and the absence of information to the contrary, there is little reason to think that a systematic bias that severely skewed the results would be introduced.
- 3. Detailed tables from CHM did not provide cross-tabulations of key sociodemographic variables. This information would have allowed for a better understanding of the inter-relationship among these variables, which is particularly important when interpreting results for the same question across related sociodemographic variables. In the absence of this information, the inter-relationship among sociodemographic variables often seen in other surveys was kept in mind when reviewing results such as the often observed relationships between age and education, age and income, and education and income.
- 4. J. Cohen, Statistical Power Analysis for the Behavioral Sciences, 2d ed. (Hillsdale: Lawrence Erlbaum Associates, 1988).
- 5. H.T. Reynolds, The Analysis of Cross-Classifications (New York: Free Press, 1977).
- 6. K.J. Daly and M.M. Sobol, *Adoption in Canada* (Study funded by National Welfare Grants, Health and Welfare Canada (Guelph: University of Guelph, National Adoption Study, 1993).
- 7. Ibid., 56-57.

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Survey of Ethnocultural Communities on New Reproductive Technologies

Shyla Dutt



Executive Summary

This paper describes the results of both a mail survey and discussions with ethnocultural communities across Canada, to ascertain their views about reproduction and new reproductive technologies. The survey was sent to over 300 organizations, and close to 11 percent responded. Follow-up discussions revealed that this response rate reflects the lack of information many organizations feel they have in this area and, in many cases, the lack of a mechanism within organizations to determine a position on issues many had never before dealt with.

Participants demonstrated a fair degree of caution with respect to new reproductive technologies. The consensus was that these technologies should be closely monitored and regulated and that the public should be well informed about them. Ensuring equal and broad-based access to both the technologies and information about them was seen as important. Support for reproductive technologies differed from one particular technology to another — ranging from virtually no support for surrogate motherhood to openness toward testing for genetic abnormalities in fetuses. Presented with specific examples, many organizations felt unable to express support or opposition, indicating that they did not have enough information or felt the issue was too contentious within

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their membership. A number of organizations, however, remained consistently opposed to almost all of the technologies. Ethnocultural women's organizations, in particular, tended to be more sceptical of the social implications of the use of the technologies than the other organizations surveyed.

Introduction

This survey was conducted pursuant to the Royal Commission on New Reproductive Technologies' wish for wider input from Canada's ethnocultural communities. The goal was to determine the attitudes and opinions that exist in those communities toward new reproductive technologies.

A qualitative, community-based approach was adopted to gather the information for this report. Given the heterogeneity of Canada's ethnocultural communities, as well as significant variations in sizes of populations, a quantitative analysis risked overlooking important currents of thought or communities of interest. It was also felt that a quantitative approach would not provide the type of contextual information needed to develop policies relevant to ethnocultural communities.

Methodology

Methodology Employed

As noted, the study consisted of a mail survey, with follow-up discussions with ethnocultural groups and organizations. A detailed questionnaire was mailed to 312 different organizations representing or serving ethnocultural communities across Canada. It was designed to:

- determine the values, beliefs, opinions, and level of awareness among ethnocultural communities of the issues being addressed by the Commission's mandate;
- assist the Commission in developing an understanding of any differences that may exist in the way reproductive technologies are viewed in these communities; and
- elicit any organized body of opinion that may exist within any given ethnocultural community on what advice the Commission should offer the government on the issues raised by its mandate.

Organizations surveyed included:

• national organizations that are ethnospecific (representing one ethnocultural community);

- national, provincial, and regional ethnocultural women's organizations and women's chapters of ethnospecific groups;
- immigrant service organizations;
- intercultural and multicultural centres;
- social service agencies serving an ethnoculturally diverse population;
- umbrella organizations that include several different racial and/or ethnic communities;
- groups promoting, or involved in, health issues relating to ethnocultural communities; and
- anti-racism organizations.

There was some difficulty assembling a list of national religious organizations within ethnocultural communities. Short of specific places of worship (churches, temples, synagogues, etc.) — which were seen as out of the context of this study — there are few appropriate national religious groups that could be surveyed.

The survey was sent out in English or French (depending on which official language is used for each group's operations) along with a postage-paid reply envelope. The survey sought to identify the nature of each of the organizations, the priorities of the communities they serve, and prevalent views about children and reproduction in those communities. Opinions were sought on the use of technology to have biological children, the delivery of reproductive services, and alternatives to new reproductive technologies. Respondents were also asked to identify what they saw as priorities for the Commission and recommendations they would like to see the Commission make.

Approximately one month after the questionnaires were mailed, telephone follow-up discussions were conducted by research assistants in Vancouver, Ottawa, Toronto, and Montreal in an attempt to encourage organizations that had not yet responded to do so, as well as to offer them the opportunity to complete the questionnaire over the telephone.

Response to Survey

Response to the survey reflected the discomfort some organizations felt in dealing with this subject area and the feeling of many that they lacked knowledge in this area. Of the 312 questionnaires sent, 34 were returned completed, representing a response rate of 10.9 percent.

Comments received during follow-up discussions, as well as written remarks, clearly explain the reasons for this low rate of response. Reasons

included:

 The majority of groups that did not complete the questionnaire felt that they could not comment on issues related to new reproductive technologies as these issues fell well outside their terms of reference. For example, one group said: "Questions included in your survey have never been discussed in our organization."

- A number of organizations returned the study uncompleted or did not mail it back because they had no mechanism to establish the organization's official views on the questions raised. Indeed, some of those who did participate indicated that the responses represented their best estimates of their members' views.
- A number of organizations stated that the issue is simply not a priority for them, and they would not, therefore, dedicate time and effort to take part in the survey.
- Some stated that they were willing to participate but had to survey their membership before responding, due to the technical and complex nature of the subject matter. As a result, they could not complete the survey in time.
- Many groups that participated opted out of parts of the survey, citing a lack of confidence in their own knowledge of the particular issues.

Since only a small percentage of organizations completed surveys, it was deemed inappropriate to summarize the results using statistical tables and generalize from these. Instead, the survey has been qualitatively analyzed; points of general consensus or disagreement have been examined, and the philosophical approaches of participants toward new reproductive technologies have been traced. In addition, attention has been paid to which groups consistently tended to dissent from the consensus, and that aspect has been highlighted. Information gathered during discussions with organizations was also integrated into the study.

Profile of Participants

Demographic Characteristics and Organizational Goals

Groups that responded represented a variety of organizations from all regions of Canada.

Approximately two-thirds are groups with a membership drawn largely from one specific ethnocultural community (ethnospecific), while the balance represent people from many communities (these organizations are multicultural — they include many different racial and ethnic groups). Two-fifths of the surveys were completed by organizations whose primary focus is service delivery and advocacy for women, while the remainder serve the general population, women included.

About one-third of the participating organizations serve a religiously homogeneous population, whereas two-thirds represent religiously diverse

populations. One-quarter of the respondents represent people from both ethnic and racial minority communities; one-quarter of the groups have members of predominantly European ethnic origin; and one-half are visible minority organizations.

The vast majority of organizations have been active in lobbying on issues of concern to the community or communities they serve. There is no predominant area in which the groups have focussed their advocacy efforts. About one-half have been involved in health care, justice, issues of concern to women, and immigration and refugee matters. A handful identify matters of concern to youth or the elderly, human rights, and religious issues as areas in which they have been politically active.

Approximately one-quarter of the respondents indicated that they had made submissions to federal or provincial inquiries dealing with health-related issues. These included briefs on the access of women to health care, health issues relating to ethnocultural communities, mental health, and new reproductive technologies.

Beliefs and Values

Organizations were asked to rank the importance of religious beliefs, children, health, employment, access to services, family members, and community participation in the communities they serve.

The most important issue was clearly employment, which was identified as one of the top three priorities by almost all of the respondents. One-half of the respondents indicated that it was the most important priority, and nearly one-half identified it as the second most important issue. Visible minority groups tended to emphasize the issue more highly than European groups, while organizations that served primarily women did not emphasize employment as highly as did those serving a broader population. In addition, ethnospecific organizations, which represent more homogeneous groups of people, placed heavy importance on employment.

Children were identified as the most important priority of only two communities. About one-half of the respondents ranked children among the top three priorities, but mostly as the third most important element. Most of the organizations that identified religious beliefs as important in their communities also mentioned that children were important.

Access to government programs — health, social services, and affordable housing — was seen as important in half of the communities. Access was ranked much higher by umbrella organizations that have members from many different communities. It was also rated as the single most important priority by one-half of the women's organizations. Access was also clearly more important to visible minority communities, which tended to rank it more highly than did European ethnic groups.

One-half of the organizations surveyed ranked health among the top three priorities, although virtually no group identified it as the single most important issue. Family members were identified as important by two in five communities, but again very rarely as the single most important priority. Very few umbrella organizations identified family as important; it was mentioned primarily by ethnospecific groups. Organizations whose membership belongs primarily to one religious group tended to rank the issue higher than those whose membership is religiously diverse. Likewise, the organizations that ranked religious beliefs as important to their members tended to identify family ties as similarly important.

About one-quarter of the respondents rated religious beliefs as one of their top three priorities. They tended to then single out children and/or family members as the other two important factors. Those that identified religion as important were almost all ethnospecific organizations.

One-quarter of the respondents also rated community participation as an important element. If it was mentioned at all, this value was rated quite highly.

Summary of Findings

Attitudes Toward Family, Women, and Reproduction

Respondents were asked to identify to what degree their communities supported certain value statements.

Three-quarters of the respondents agreed that most people or everyone in their communities felt that children are important because they enable a community to carry on its cultural and ethnic heritage. This value tended to be more prevalent in ethnospecific organizations and less evident in groups that included numerous ethnocultural communities. Women's groups felt this attitude was more prevalent than did organizations that included both men and women. Organizations that had previously indicated that children were a priority in their communities were unanimous in suggesting that children are important in furthering an ethnicity.

One-third of the respondents felt that equality between men and women was a value universally held in their communities, and one-third responded that almost everyone they represented believed in sexual equality. However, women's groups saw it differently. They were more likely than other organizations to state that the principle of equality of the sexes is shared only by "some" or "many" people in their communities, not by all.

There was a wide divergence of opinion on the suggestion that the status of a woman is dependent on her ability to have children. Two-thirds of the respondents suggested that this belief was rare or non-existent in their communities, whereas one-quarter stated that it was very prevalent. Again, women's organizations saw this belief as more prevalent than did other groups. Organizations that had responded that children were highly

valued in their communities suggested that a woman's worth was not related to her childbearing ability.

Two-thirds of the respondents said that most people or everyone in their communities supported the principle that rights and freedoms should be guaranteed equally to men and women. Once again, women's organizations were likely to see this value as being less widespread.

There was no consensus on the question of whether communities believe that having at least one male child is very important. Some suggested that this value is a universal belief in their communities, while others stated that it does not exist at all. Organizations with ethnically homogeneous memberships reported this belief as more widespread than did more culturally diverse organizations.

Those who felt that having a male child is viewed as important in their communities tended to also believe that biological fatherhood is particularly important to men. Likewise, those organizations that downplayed the importance of male children in their cultures said that men do not view having children as extremely important.

Most respondents felt that overcoming or preventing infertility is not a priority in their communities. Only one-quarter of those who responded suggested that averting infertility is important in their communities. Organizations that had previously identified religion as important in their communities tended to rank the prevention of infertility as a higher priority.

However, there was little enthusiasm for the proposition that people who cannot have children should consider adoption instead of using technology to aid conception. Two-thirds of the respondents suggested that this was a minority viewpoint in their communities. Those who represented European ethnic groups were less open to the idea of adoption than were visible minority groups.

Attitudes Toward New Reproductive Technologies

There was strong agreement for the suggestion that "medical science is moving too fast for our society to have control over its use." Those organizations that disagreed with this statement tended to be the same ones that felt that overcoming infertility was not a priority in their communities. In other words, those who had placed a higher value on preventing infertility also felt uncomfortable about the speed of medical innovation.

There was virtually unanimous support for the statement: "Our community is more concerned with access to basic health care and overcoming discrimination than with technology to assist in reproduction." Only one respondent disagreed.

The suggestion that "all known technologies should be made available to help people who have difficulties having a child" was generally accepted; very few respondents disagreed, although one-third stated that they had no opinion.

Respondents were split on the suggestion that "technology should not interfere with nature when it comes to having children." One-third agreed, one-third disagreed, and one-third were unsure or had no opinion. Visible minority groups were more likely to disagree with the statement than were European ethnocultural groups. Those who had responded earlier that children are important because they enable a community to carry on its ethnic heritage were split almost evenly between support for and opposition to the role of technology.

Very few respondents agreed with "using technology to help parents choose the sex of their child," although about two-fifths of respondents expressed no opinion on the statement. One-half of the respondents either disagreed or strongly disagreed with the suggestion. Groups with predominantly female memberships were overwhelmingly opposed to the proposition. Of those who had earlier stated that having at least one male child is important in their communities, one-half responded that technology should not be used for sex selection, and the other half either agreed that it was acceptable or remained silent on the issue.

The vast majority of the respondents agreed that "using technology to determine the potential for a child being born with a genetic disorder is an acceptable option."

Likewise, there was general consensus that "international adoption is a viable option for members of our community." Those who had previously supported the suggestion that adoption was preferable to technologically aided conception were particularly supportive of international adoption.

The Use of Technology to Have Biological Children

Survey respondents were asked to indicate whether they supported or opposed various examples of reproductive technologies. Participants were very cautious in their responses, with quite a large number consistently indicating they neither supported nor opposed any of the technologies.

About one-third indicated that they were in favour of "bringing the female's egg and the male's sperm together outside a woman's body and then placing the embryo in her womb." One-third stated that they neither supported nor opposed the procedure. A handful (all women's organizations) were opposed, and a small number indicated that they did not have enough information to form an opinion.

A very small number supported (while nearly one-half neither supported nor opposed) the use of sperm from an anonymous donor to assist a woman to conceive, citing a variety of reasons. "We do not support or oppose it because it may be a viable alternative for lesbian couples," said one organization. Another suggested that "there are many who have not had an opportunity to marry but would like to conceive without having a sexual relationship."

A similar number of respondents indicated opposition to the method. "Culturally, this would be very hard to accept," wrote one respondent.

"There are far too many risks (i.e., AIDS [acquired immunodeficiency syndrome]) associated with this," said another.

The results were almost exactly the same when respondents were asked whether the use of sperm donated by a friend or relative to assist a woman to conceive was permissible. Nearly one-half said no, almost one-half were undecided, and a very small number declared support.

There was general consensus in favour of tests on the unborn fetus to identify genetic diseases or abnormalities, although a sizable minority voiced no opinion and some were opposed. "If a test indicates genetic illness, a woman may be pressured to abort the fetus even if she does not want to," one women's group argued. However, another women's organization represented the majority when it wrote: "Some of the ethical issues surrounding genetic testing have to be accepted by individuals, but society has a responsibility to make rational choices available."

Not a single respondent supported the use of tests on the unborn fetus for the purposes of sex selection. However, about one-half the respondents said that they were neither for nor against the procedure. The other half said that they were against it and expressed forceful opposition to the tests. "We are strongly opposed to sex-selection," one participant wrote; "It's an abuse of technology and doctors who have facilitated it are immoral." Another suggested that "female fetuses will be aborted for sure."

Those who had earlier indicated that many in their communities view having at least one male child as important tended to be opposed to sex selection. Women's organizations were overwhelmingly opposed to tests for sex selection, while the majority of groups that represent both men and women were ambivalent. Organizations that had placed a high value on religious beliefs were also overwhelmingly opposed. Organizations that expressed no opinion on sex-selection tests tended to be groups that included members of a variety of different communities, whereas those opposed were more likely to be ethnospecific.

By contrast, there was no consensus on the use of tests on the unborn fetus to identify its sex in order to identify genetic diseases linked to sex. Respondents were evenly split between those in favour, those against, and those who did not support or oppose the procedure. "The health of the unborn child is important in this community," said one. "Therefore, they would agree."

There was almost no support for surrogate motherhood through artificial insemination of the surrogate by the male's sperm. Most respondents said that they were against such a procedure, although a large number said they did not have enough information to make a judgment. "Each case has to be viewed on its own merit and legal ramifications," commented one participant.

Most of those who opposed the artificial insemination of a surrogate mother were also against joining the egg and sperm of the couple outside the woman's body and then placing them inside the surrogate's womb. However, respondents indicated a lack of information about this procedure,

and the majority were neither in favour nor opposed. In both cases, organizations in which religion plays an important role were far more adamantly opposed than others.

Some expressed concerns about the social implications of surrogate motherhood. "We are also concerned about poor women who might choose to be a surrogate in order to make money," one group wrote. Another suggested its community was opposed because surrogate motherhood "creates false hopes in women, due to poor success rate, and strengthens the belief that a woman is fulfilled only if she bears a child or has to be a biological mother."

About one-half of the respondents ruled out the option of a female relative assisting a woman unable to bear children by being inseminated with the sperm of the woman's male partner, while the other half were unsure. Respondents saw little difference between the female relative being directly inseminated or having the embryo implanted in her womb. "[Our] religious belief does not accept this idea," wrote one.

Responses on the use of embryos or fetal tissue for research were practically evenly split between support, uncertainty, and no opinion due to a lack of information. A small number were opposed. Some contended such research is not a clear-cut issue. One agency wrote: "These are highly experimental procedures and their value remains to be proven. However, we do oppose the concept that women should become pregnant to provide fetal tissues to treat another family member."

A number of organizations surveyed were opposed to practically all reproductive technologies, and there appear to be some common denominators that connect these groups. Approximately one-half of the women's groups were consistently opposed to the technologies. One group expressed the fear that reproductive technologies could "become the domain of the rich and powerful and an instrument of exploitation of visible minority and immigrant women." Another suggested that "not enough information is made available concerning procedures' risks and outcomes by the medical profession and we are concerned about these procedures." Visible minority organizations also tended to be more reluctant to support the technologies than European or multicultural groups.

Conversely, most of those who said that their communities place a high importance on children were either supportive or non-committal in response to the questions. Those who indicated that women's status in their communities is linked to the ability to have children tended to be more supportive of reproductive technologies than those who did not see that sentiment as prominent in their communities.

Three-quarters of the respondents stated that they had been somewhat or very aware of reproductive technologies before answering the survey. The balance said they had not been very aware.

Delivery of Reproductive Services

There was a fair degree of consensus among respondents on issues relating to the delivery of reproductive services. Those participants who had earlier expressed opposition to some procedures — such as surrogate motherhood or artificial insemination — tended to be more concerned than the general sample about the use of reproductive technologies. For example, they were more likely to be worried about the exploitation of women or to express concern about sex selection or testing for racial characteristics.

It was clear that many organizations felt that they did not have enough information to make judgments about new reproductive technologies. This was particularly the case among groups that had indicated that, prior to the receipt of this survey, they were not very aware of reproductive technologies. These organizations tended to be unsure about the delivery of reproductive services and opted out of many of the questions.

Two-thirds of all respondents agreed with the statement that "there is limited access to information on the new reproductive technologies." The balance said that they were not sure. Only one group (a medical

organization) felt that there was indeed enough access.

"More information and explanations are definitely needed so that we can understand the technologies," suggested one group. Another stated that "little is known about the success rates for NRTs [new reproductive technologies]. Many women get sucked into trying them at great cost (mental, physical and monetary)."

"More information should be available to communities, governments and interest groups," one group wrote. "Canada lags behind other O.E.C.D. [Organisation for Economic Co-operation and Development] countries in

this area."

About one-half of the respondents were not sure whether or not it would be difficult for their community to access reproductive technology, given the current system of delivering services. A small handful felt that there would be no problem, and the balance believed that access would be difficult.

There was also general suspicion about the technologies. One group stated that it "totally opposes anything which is going to interfere with

nature ... we prefer to wait on God."

Two-thirds of the respondents felt that the use of reproductive technologies could lead to the exploitation of women. This feeling was particularly strong among women's groups. It was also strong among those who see as prevalent in their communities the idea that a woman's worth is directly related to her childbearing ability. Most of the remainder were unsure, while a small number did not think such exploitation was likely.

"We are concerned about the risks, particularly for surrogates (for example, poor women carrying babies for rich women)," said one women's group. "Some technologies are somewhat dehumanizing and potentially

could objectify a woman as a reproductive machine," was another comment. One organization stated that "childless couples may be willing to do anything. Doctors and lawyers may act as go-betweens and benefit financially."

An overwhelming majority of the respondents would be concerned if their community were to be the target of those promoting sex-selection technologies. Virtually none dismissed this as a concern, while a small minority were unsure. Women's organizations were virtually unanimous that this prospect alarmed them, as were groups in which religion plays an important role. Those who had earlier suggested that having at least one male child is an important cultural value in their communities were almost unanimous in their concern about sex-selection tests. "The implications of selecting or aborting a fetus of the 'wrong' sex [are] extremely frightening to us," wrote one women's group. Another suggested that "technologies which allow individuals or couples to select the sex of their child can create more problems than they solve."

Similarly, a strong majority of respondents — particularly women's and religious organizations — were concerned that reproductive technologies could be used to preselect genes related to "racial type." Again, there were a handful who were unconcerned by this and a small number who were unsure. Visible minority groups tended to be more concerned about this issue than were European or multicultural organizations.

"This is just another, more sophisticated, form of racial discrimination," wrote one organization. Another argued that "it would arouse racial tension and conflict," and one feared that it could be used for "the obliteration of other races."

There was consensus that equal access to the new reproductive technologies is an important concern. Women's organizations were, once again, practically unanimous in expressing concern about access. A few disagreed with this assertion: "We would hesitate to make costly dangerous procedures available to all," and a small number were unsure.

However, there was overwhelming consensus that there is a need for counselling on the options available through new reproductive technologies. Almost no one disagreed with this suggestion. "Certainly counselling is a must before people reach a decision," said one respondent.

Respondents were also asked whether children conceived through the use of donated sperm or eggs have a right to information about their biological or cultural heritage. Here, too, a strong majority agreed, although a fair number of respondents were unsure, and many who were supportive expressed caution: "Yes, but at the appropriate time, when the information can be understood and evaluated in a rational manner."

Alternatives to New Reproductive Technologies

Only one respondent did not feel that the adoption of children by those unable to have biological children was an accepted solution to infertility.

Most of the others felt that it was indeed viewed as an option in their communities, while a small number were unsure.

There were differing responses on the question of whether international adoptions are necessary to meet each community's adoption needs: respondents were evenly split between those who saw a role for international adoption, those who did not, and those who were uncertain. Organizations that serve a religiously homogeneous population were more sceptical about international adoption than were those with more diverse memberships. "International adoptions are extremely difficult," wrote one group that supports them. "A more humane approach with as little red tape would make adoptions a really viable alternative to new reproductive technologies." Another group wrote, "There are many starving children in wartorn countries that deserve a chance to live."

Even many of those who had earlier agreed with the statement: "International adoption is a viable option for members of our community" were unsure when asked whether such adoptions were necessary to meet adoption needs in their communities. Those who had earlier suggested that children are important because they enable a community to carry on its cultural and ethnic heritage were inclined to be less supportive of international adoption.

Work of the Royal Commission on New Reproductive Technologies

Importance of Issues

Respondents were asked to rate how important a number of issues should be in the development of recommendations to the government.

Access to medical care was seen as by far the most important issue. Every respondent but one identified this as an important or very important issue in their communities. The vast bulk of organizations also saw the demographics of Canadian society as an important factor for the Commission's consideration. Visible minority and women's organizations (with one exception) were unanimous on this.

The unequal status of women was rated as important or very important by almost all participants, as was racism.

Social pressures to bear children were seen as being moderately important by most respondents. Organizations that had previously identified children as a priority in their community tended to rate these pressures as more important. A very small number were polarized at either end, seeing this issue as very important or not at all important.

Cultural diversity was rated as very important by most visible minority groups and as important or having limited importance by the balance of respondents. A handful saw religious diversity as being very important. The balance of respondents were split between those who saw it as important and those who ascribed little importance to it.

Respondents were evenly split among those who felt that discrimination in society on the basis of disability was very important, important,

or of limited importance in their communities. Participants were also evenly split between those who saw discrimination on the basis of sexual orientation as an important or very important issue and those who said it

had little or no weight.

There was a wide diversity of opinion on the relevance to the Commission of the uneven distribution of power and money in society. One-third saw it as very important, one-third said it was important, and one-third suggested it was of little importance in their communities. Women's groups tended to rank this issue more highly in terms of importance. Just a handful of respondents saw male power and influence in the reproductive industry as being either very important or not important at all. Most of the remainder saw it as a moderately important issue.

Recommendations the Commission Should Make

Survey respondents were asked what recommendations they would like the Royal Commission on New Reproductive Technologies to make on a number of issues. About two-thirds of those surveyed responded to this part of the survey, and extracts from their comments follow.

The Role of the Federal Government

There was consensus that the federal government has a leadership role to play in the field of new reproductive technologies. Participants outlined two general areas for federal involvement: control over the use of reproductive technologies, and financial responsibility. This consensus was summed up by one ethnospecific organization, which said that it was the government's job to "make technology more accessible but at the same time control it to prevent abuse."

"The government should structure and control the advancement and use of technology in our society and not leave a legal and legislative void," wrote one. There was strong support for the government setting standards and regulations and ensuring their enforcement. One participant suggested that there should be "mechanisms that restrict any rash decisions."

One group suggested that the government should democratize the field of reproductive technology. "The federal government should encourage more women to be involved and have a say (in decision-making positions) in the areas of reproductive research. Information regarding any negative effects of new reproductive technologies must be made available to the public."

There were also many who suggested that the government has a responsibility to properly finance research into these technologies as well as access to them. "The federal government should provide financial budgets to do more research on this issue," said one participant.

"Any technologies that the government decides to make available should be available to all notwithstanding socio-economic status, race, etcetera," wrote one. Another agreed that "the federal government should work with provincial governments to ensure individuals across Canada

have equal access to reproductive technologies and that adequate funding is made available for fertility treatments."

A small number of participants expressed the belief that reproductive technologies are a misplaced priority. "[Funds for new reproductive technologies] is truly money wasted," one participant said. "It's more important to provide support to single parents and improve conditions for caring for children. Therefore, the federal government should ensure that legislation such as a national day-care program becomes a reality instead of supporting a growth industry which negates gains made by the women's movement."

"Government should not only look into making babies but also into taking care of them later on by providing day care, education, and so on," wrote another.

The Use of New Reproductive Technologies and Associated Fertility Drugs

There was unanimous opinion that there should be limits on the use of new reproductive technologies, and that those using them should be fully informed about all of their implications. "All the risks and consequences that such drugs could carry on the mothers, and also the babies, should be clear," said one respondent.

"Techniques should be monitored and limited," wrote one women's group. "Information (written and verbal) should be given to all people undergoing tests. This should be legislated." "The government should ensure extensive research has been done and future implications studied," wrote another. "There must be some sort of surveillance to prevent exploitation and information manipulation," was another comment.

A few expressed the concern that the technologies be used only as a measure of last resort. "[It must be] ensured that NRTs and associated fertility drugs are used only after a couple has undergone a process of counselling in which: (a) their motives for having biological children are explored; (b) they are made aware of the success rates and the problems of multiple pregnancies; and (c) alternatives such as adoption [are discussed]. These should not be given by the physician but by another group of health providers," was one comment.

Accessibility was also an issue raised by some. "These technologies should be accessible across Canada, with necessary funding provided, under the supervision of competent health professionals," suggested one organization.

It was noted that accessibility includes the provision of information on these technologies in the various languages of ethnocultural communities. "Information regarding positive and negative side-effects should be widely disseminated in various languages and at the lay person's level and through the multicultural media (audio and visual media as well)."

Creation of a Regulatory Body on New Reproductive Technologies

There was strong support for a regulatory body on new reproductive

technologies.

Respondents were basically split into two general categories. Most envisaged a regulatory agency with strong powers; some others saw the body as one that could provide information and monitor the development of the technologies.

"A regulatory body should ensure the application of ethical and procedural controls and should monitor the evolution and advancement of

technologies," one organization suggested.

One respondent supported the principle of tight regulation over the technologies but suggested that role could be fulfilled under existing regulatory agencies. In a similar vein, one respondent suggested a new community advisory body should be created not on new reproductive technologies but on women's health, under which the technologies and reproductive choices could become one component.

Those who supported a stronger information-gathering role for a regulatory body suggested that it monitor a number of different areas. These included the demographic effects of the technologies (to see if an uneven distribution of male and female babies developed) and ongoing

health effects.

It was noted by several that care should be taken to include representatives from equity-seeking groups on such a board. One organization noted that "more women should be involved and have a say in the areas of reproductive research. Such bodies should be created in order to ensure that such technologies are not abused and there should be substantial representation of women of diverse backgrounds to ensure cultural and racial sensitivity to these issues."

Public Participation in the Development of Regulations and Decisions About

Funding, Ethics, Service Delivery, and Long-Term Follow-Up

There were a handful of respondents who indicated that new reproductive technologies are too complicated or too controversial to be the subject of broad public consultation and participation. However, the vast majority of respondents felt that input from a well-informed public was crucial to the development of sound public policy. Suggestions on how this could best be attained included the following:

- Interest groups should sit on any regulatory body.
- Any public consultation process should be broad-based and should include ethnic languages and ethnospecific agencies.
- Community focus groups should be held and local animators hired in different communities to facilitate full consultation.
- Women should have the primary role in areas of reproductive research and technologies.

 People of diverse ethnic and racial backgrounds must be a full part of the process.

A number of respondents echoed the thoughts of one group, which suggested that "good public education is important so the public can make informed choices."

The Cost of Infertility or Reproductive Technology Services

There was no consensus about who should bear the costs of reproductive technologies. Some felt that individuals who benefited should pay the entire cost. Others suggested that new reproductive technologies should be listed procedures in public medical insurance plans. Many proposed that costs be shared.

The following is a representative sample of some of the opinions collected.

- "If specific techniques are approved by a regulatory body then they should be available to everyone. The government [health care system] and individual should share the costs of the procedures."
- "The government should bear the cost but its funding priority should be very low as prevention and curing illness are much more important."
- "There should be cost sharing between individuals and health care plans."
- "The cost of new reproductive technologies should be borne by the individual couple."
- "We don't see why the government of Canada should use public funds to play God."
- "The public should not bear the costs of development of such technologies which serve the needs of the few, at the cost of possible gross ethical violation (commercialization of the whole process, trivialization of the act of creation, creation of a procreation industry, exploitation of women)."
- "The cost should be shared between federal, provincial and municipal governments and also international organizations involved in fertility and reproductive research."

The Future Development of and Research into New Reproductive Technologies

There was broad consensus that the research and development of future new reproductive technologies were important, but there was little agreement on how they should proceed. Quite a number of participants advocated an active government role in this area, including direct research, funding grants and bursaries, and regulation and close monitoring of ethical questions.

Several participants focussed particularly on the government's obligation to ensure that research proceeds ethically. "More women should be involved and should ensure the effects are not abusing women or certain racial and ethnic groups," said one respondent.

A handful called for an increase in the public resources that are invested in this sector, while others expressed the opposite view. "Let the free market govern," was one response. "There should be no government funding here." "This is a mixed responsibility between the state and private

industry," was another.

Some, however, maintained that this area of medical science should simply not be a priority. "Research in other areas of health and health care is more pressing than the new reproductive technologies," one group suggested.

Monitoring the Results of the Use of New Reproductive Technologies

There was unanimity of opinion that the evolution of these technologies should be carefully monitored and studied. Respondents focussed particularly on the public's need to have better and more complete information about the technologies in order to both take advantage of them and make more informed decisions about their use.

One group was typical in suggesting that "all the positives and negatives should be publicly-discussed and published so those who are interested in using new reproductive technologies can benefit from them."

"All of these developments should be followed and the public informed about it, providing also opinions about possible ethical, demographic, social and psychological consequences," wrote another.

There were a variety of responses regarding who should be charged with this monitoring function. Most felt it was the government's responsibility, with several suggesting a regulatory agency be created.

Others suggested broad-based involvement by the public, medical ethicists, universities and medical schools, provincial governments,

hospitals, and health care professionals in the monitoring role.

Only one respondent addressed the method of evaluating the technologies. "An objective [criterion] needs to be developed for success rates," the group suggested. "At present, different institutions use different criteria ... Private clinics need to be under a regulatory body also."

Other Concerns

A number of groups raised some further concerns about new reproductive technologies, specifically around questions of potential misuse or abuse.

"There are concerns around private companies in [the United States] soliciting young adolescent clients (Canadians) for surrogate mothering in return for money," wrote one group that suggested legislation to protect such individuals.

Another organization expressed the concern that some issues — such as sex selection or surrogate motherhood — are controversial subjects not openly discussed in its community.

Conclusion

In response to most questions, this survey showed that there tended to be some commonality of opinion among ethnocultural communities in a sample that included groups from coast to coast and from many different backgrounds. This commonality combined caution about new reproductive technologies with a desire that they be carefully controlled and reflected concerns about equality of access to the technologies and to information about them. The divergences from this picture tended to be ethnocultural women's organizations and associations that represent communities where religion plays a strong role. Such groups were likely to be even more cautious about the technologies than the general sample and were more vocal about the negative consequences they envisaged.

The survey revealed its broadest common ground on the leadership role that almost all groups feel the federal government should play in the field of new reproductive technologies. This consensus called for strong regulation and control over the use of the technologies and a financial responsibility for their use.

Most organizations were unsure about many specific aspects of new reproductive technologies. This was a reflection of a feeling that they lacked information about the technologies. Not surprisingly, those organizations that had expressed outright opposition to many procedures tended to also focus on their potential abuse.

There was also a certain ambivalence expressed between theory and practice. For example, there was strong feeling that medical science is moving too quickly for society to be able to control it. However, those who felt most strongly about this were the same respondents who placed a higher value on preventing infertility and tended to be more supportive of specific technologies. In another example, many who expressed strong support for international adoption in general did not think it was a viable option in their own communities.

The results of this survey demonstrate that Canadians from ethnocultural communities have mixed feelings toward new reproductive technologies. On the one hand, there is a genuine thirst for more knowledge and an insistence that both information about the technologies and the technologies themselves be made accessible to Canadians belonging to ethnic and racial minorities. On the other hand, many of the technologies do not meet with approval among the communities, and there is a significant amount of scepticism about their social implications. Many communities fear that the technologies could be used to exploit their members or

to divide their communities. They look to government for protection against exploitation, and they look to government to include them in the process of developing public policy on these issues.

Appendix 1. Survey of Ethnocultural Organizations on Issues Relating to New Reproductive Technologies

Thank you for taking the time to participate in our survey.

Please return your completed questionnaire to

Socio-Cultural Research and Training

in the enclosed envelope.

This questionnaire has been prepared by Socio-Cultural Research and Training for the Royal Commission on New Reproductive Technologies. The Commission is examining various aspects and implications of a number of technologies pertaining to reproduction and their impact on society. The questionnaire is one of the instruments being used to seek the views of ethnocultural communities on the development and use of these technologies.

Your input to the work of the Commission is very important and will enable the Commission to incorporate the issues and concerns of ethnocultural communities into its final report which is due in October 1992.

Thank you for taking the time to participate in this survey. Please return the questionnaire as soon as possible.

Name of your organization:
Contact person in your organization if follow up is required:
Name:
Position:
Address:
Phone:
Pnone:

About Your Organization

Your answers to the following questions about your organization will enable us to compare the responses of different ethnic communities and organizations. Your answers to these and all other questions are strictly confidential.

1.	Please list the ethnocultural community or communities which are served by your organization.	e
		_

					primarily served by yonain groups.
	Women Men Families Children Youth (15	-24 years))		Single Parents Married Couples Other (Please specify)
					ecify the religions represen organization.
Has	s vour organ	nization be	een active	in lob	bying on issues of concerr
the If Y	Yes ES, please i	or comm	nunities yo No	ou ser	bying on issues of concerr ve? h your organization has be
the If Y	community	ndicate thing. re services sues sues ent equity ues ssues	No No he areas in	ou ser	ve?
the	Yes ES, please in the interior of the interio	ndicate thing. re services sues ent equity ues ssues ase specification m	No he areas in	missio	h your organization has be

What's Important to Your Organization and the Community It Serves

Please respond to the following questions in a way which reflects the views and opinions of your organization.

7.		ase rank the following nmunity or communities			nce to the	e ethnocu	ıltural
		e "1" to indicate what nmunities, "2" for the r					
	Rel	ligious beliefs					
	Ch	ildren					
	He	alth					
	Em	nployment					
	Acc	cess to services					
	Spe	ecify					
	Fai	mily members					
	Co	mmunity participation					
8.		ease consider the follow					
8.	the	ease consider the follow by represent opinions has a serve. Check only o	neld within	the comeach sta	munity of tement Many	some	inities No
8.	the	ey represent opinions h	eld within	the comeach sta	munity of tement Many	some	ınities
8.	the	ey represent opinions h	neld within	the comeach sta	munity of tement Many	some	inities No
8.	the you	Children are important because they enable a community to carry on its cultural and	eld within ne box for Everyone	the comeach sta	munity of tement Many people	Some people	No one
8.	the you	Children are important because they enable a community to carry on its cultural and ethnic heritage. Men and women should be valued	Everyone	the comeach sta	Many people	Some people	No one

		Everyone	Most people	Many people	Some people	No one
d)	Rights and freedoms should be guaranteed equally to men and women.					
e)	Having at least one male child is very important.	0				
f)	Biological fatherhood is particularly important to men.			0		. 🗆
g)	Overcoming or preventing infertility is a priority.	` □			0	
h)	People who cannot have children should consider adoption instead of using technology to aid conception.	_	_	0	_	
Lis	ted below are statemen	nts that ma	y or may	not repi	resent op	inions

9. Listed below are statements that may or may not represent opinions within your organization. Using the scales below, please indicate your opinion of each as it applies to your organization and the ethnocultural communities you serve.

Check only one box for each statement.

Strongly agree	Agree	Disagree	Strongly disagree	Neit agr no disa	ree	8	kı en	on'i now oug ut t opic	h he		ot ire
1	2	3	4		5			6		7	7
					1	2	3	4	5	6	7
		e is moving control ove		r our							

	rongly gree	Agree	Disagree	Strongly disagree	Neit agr no disag	ee	8	kı end	on't now oug it t	h he	No su	
	1	2	3	4	5	5			6		7	7
						1	2	3	4	5	6	7
b)	issues care ar	such as	y is more co access to b oming discr y to assist i	asic health imination	n than							
c)	availab	ole to hel	nologies sh p people wl ng a child.		ade							
d)			ould not int comes to h									
e)	choose		gy to help p of their chi on.									
f)	potent	ial for a	gy to detern child being rs is an acc	born with	otion.							
g)			doption is a our comm		tion							

The Use of Technology to Have Biological Children

The technologies used to assist people to have biological children are called reproductive technologies. The following are examples of reproductive technologies. Please indicate whether your organization supports or opposes these technologies and any concerns you may have about their use.

10. Bringing the female's egg and the male's sperm together outside a woman's body and then placing them in her womb.

Support	Oppose	Neither support nor oppose	Don't have enough information
Concerns:			

	The use of sper conceive.	m from an anoi	nymous donor to a	assist a woman to
	Support	Oppose	Neither support nor oppose	Don't have enough information
	Concerns:			
2.	The use of sperr conceive.	n donated by a f	riend or relative to	assist a woman to
	Support	Oppose	Neither support nor oppose	Don't have enough information
-				
	Concerns:			
3.	The use of tests abnormalities.	on the unborn	fetus to identify g	enetic diseases o
	Support	Oppose	Neither support nor oppose	Don't have enough information
-				
	Concerns:			
	female to:		etus to identify wh	ether it is male or
	a) Identify ger	netic diseases lin	Neither	Don't have
			support nor	
	Support	Oppose	oppose	enough information
-	Support	Oppose	oppose	
-				information

	b) Select the	sex of the child.		
	Support	Oppose	Neither support nor oppose	Don't have enough information
_				
	Concerns:			
15.	paying another	woman to act as	iren, does your org a surrogate mother inseminated with	er for the couple.
	a) If the Surre	gate is artificially	Neither Neither	Don't have
	Support	Oppose	support nor oppose	enough information
•				
	Concerns:			
			ouple are joined to ced inside the sur Neither support nor oppose	
	Concerns:			
	For a woman w	ho is unable to b	ear children, does	your organization
16.	children of their	ole asking a fem r own by:		sist them to have
16.	children of their	ole asking a fem r own by:	sperm of the male Neither support nor oppose	sist them to have
	a) Being inse	ole asking a fem r own by: minated with the	sperm of the male Neither support nor	e partner? Don't have enough

	b) Having egg(s) and sperm from	m the couple impla	nted in her womb
	Support	Oppose	Neither support nor oppose	Don't have enough information
Ī				
	Concerns:			
7.	The use of embr		e for research to p	rovide solutions t
			Neither support nor	Don't have enough information
	Support	Oppose	oppose	information
	Support	Oppose	oppose	
8.	Concerns:		vey, how aware	
8.	Concerns:	swered this sur	vey, how aware	were you or you
)el	Concerns: Before you and organization of a very aware Somewhat	swered this sure any reproductive aware	vey, how aware vertechnologies? Not very aware very aw	were you or you
)el	Concerns: Before you and organization of a somewhat somewhat see respond to the opinions of your Given the current seems of the current seems of the current seems of your seems	swered this sure any reproductive aware ductive Service of following statem of organization.	vey, how aware vertechnologies? Not very aware very aw	were you or you re are h reflects the view

438 Social Values and Attitudes Surrounding NRTs 20. Based on our awareness of reproductive technologies, their use could lead to the exploitation of women. No Not sure Yes PLEASE ELABORATE 21. We would be concerned if our community were to be the target of those promoting technologies which make it possible to select the sex of the child. Not sure No Yes PLEASE ELABORATE 22. We would be concerned that reproductive technologies could be used to preselect certain genes related to "racial type". Not sure Yes No PLEASE ELABORATE

23. Equal access to the new reproductive technologies would be an important concern.

□ Yes

□ No

□ Not sure

PLEASE ELABORATE

24.		e is li nologie		access						repr	oddelive
		Yes				No		r	-	Not s	ure
	PLEA	ASE EI	_ABOR/	ATE						······································	
25.			g on t		ons	availa	able th	rough	new	repr	oductive
		Yes				No		1		Not s	ure
	PLE.	ASE EI	LABORA	ATE							
26.	Chil	dren c	onceive	d throu	gh t	he use	of dona	ited sp	erm	or egg	gs have a
	righ	t to inf	ormatio	n abou	t th	eir biol	ogical a	nd cul	tura	l herit	age.
	righ:	t to inf	ormatio	n abou	t th	eir biol No	ogical a	nd cul	tura	l herit	age.
		Yes	ormatic	n abou	t th	eir biol	ogical a	nd cul	tura		age.
		Yes		n abou	t th	eir biol	ogical a	nd cul	tura		age.
Alto	PLE	Yes ASE E	LABOR	n abou	t th	No	ogical a	nd cul	tura		age.
Alt c 27.	PLE.	Yes ASE Electrical Electrical Association and association and association are adopted as a second as	LABOR	ATE Reproc	duc	No tive Tennende	echnolo	nd cul	le to	Not s	age.
	PLE.	Yes ASE Electrical Electrical Association and association and association are adopted as a second as	o New	ATE Reproc	duc	No tive Tennende	echnolo	ogies e unab	le to	Not s	age. ure piological aunity or
	PLE.	Yes ASE Electric to the adoption at the adopt	o New	Reproc	duc by lluti	No tive Te	echnolo	ogies e unab	□ lle to	have I	age. ure piological aunity or
	PLE.	Yes ASE Electric to the adoption at the adopt	o New otion of an acceies you	Reproc	duc by lluti	No tive Te	echnolo	ogies e unab	□ lle to	have I	age. ure piological aunity or

28.	Are international adoptions necessary to meet the adoption needs in the community or communities you serve?					
		Yes		No		Not sure
	PLE	ASE ELABORATE				

Work of the Royal Commission on New Reproductive Technologies

The Royal Commission on New Reproductive Technologies will be making recommendations to the federal government about the use of reproductive technologies in Canada. Using the rating scale below, please indicate how important each of the following issues should be in the development of recommendations to the government.

Please respond in a way which reflects the views and opinions of your organization.

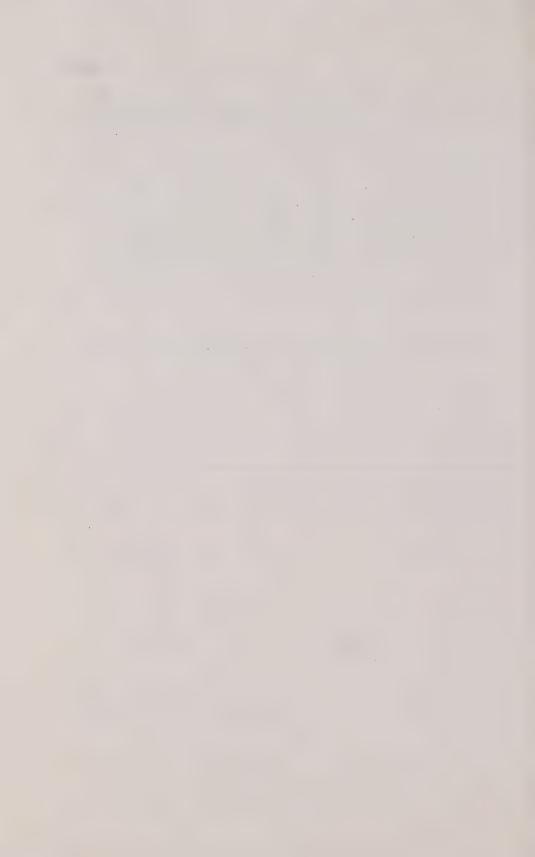
		Very important	Important	Limited importance	Not at all important
29.	Demographics of Canadian society				
	Unequal status of women	0			
	Racism				
	Social pressures to bear children				
	Cultural diversity				
	Religious diversity				
	Discrimination on the basis of disability	_			
	Discrimination on the basis of sexual orientation				_
	Uneven distribution of power and money in society				

	Very important	Important	Limited importance	Not at all important
Male power and influence in the reproductive industry		П	П	
Barriers to access	_			
to medical care				
What recommendate following areas?	ations would	you like the (Commission to	make in the
a) The role of th	e federal gov	ernment.		
b) The use of ne drugs.	w reproducti	ve technolog	ies and associ	iated fertility
c) Creation of a technologies.	regulatory o	or advisory b	oody on new	reproductive

30.

	Values and Attitudes Surrounding NRTs
d)	Public participation in the development of regulations and decisions about funding, ethics, service delivery and long-term follow up.
e)	Who should bear the cost of infertility or reproductive technology services.
f)	Future development of and research on new reproductive technologies.
g)	Monitoring of the results of the use of new reproductive technologies.
A	
orga	there any reproductive issues which are important to your inization and the community or communities it serves but which not addressed in this questionnaire?
	Yes D No

32.	If you answered YES to question 31					
	a)	Indicate those issues not addressed in this questionnaire.				
	b)	What are the effects of these issues in the community or communities which are served by your organization?				
	_					
,						
	Thank you for taking the time to complete this questionnaire.					
		Your Comments				
_						





World Religions and New Reproductive Technologies

Harold Coward



Executive Summary

New reproductive technologies sometimes raise difficult moral or religious questions. This paper looks at issues from different religious perspectives, because Canada is a pluralistic state composed of many diverse groups, each with its own views on such questions. Because Canada is a secular society, policies will be secular, which means there is an attempt to find a solution to the problem of common action by individuals drawn from diverse moral communities with competing views.

In this case, views on prenatal diagnosis, abortion, artificial insemination, in vitro fertilization, sex selection, the use of aborted fetal tissue for research, and research on human embryos are discussed from the perspectives of seven different religious orientations. To facilitate comparisons, charts were created, then the charts were submitted to religious experts for comment. Following this, some minor corrections were made to the charts.

This paper was completed for the Royal Commission on New Reproductive Technologies in April 1992.

Introduction

Canada is a pluralistic state spanning numerous communities, which have diverse views of human nature, morality, and the good life. In addition to the various Christian communities, there are the Jewish, Islamic, Hindu, Sikh, Jain, Buddhist, and Native American communities (to name only some major groupings). The various religious communities contribute to Canada's diversity of moral viewpoints.

The Royal Commission on New Reproductive Technologies should be sensitive to the differing viewpoints of these communities; however, contemporary Canada is a secular society, and its ethical policies will be necessarily secular. Secular ethics is not the attempt to live within and to apply the contents of a particular view of human nature, morality, and the good life; rather, it is an attempt to find a solution to the problem of common action by individuals drawn from diverse moral communities with competing views. This background paper attempts to catalogue the views of the various religious communities in order to help the Commission's search for a basis for common policy recommendations in the midst of Canada's religious and secular diversity.

Religions constitute a major source for ethical viewpoints in Canada. Religious ethics claim to arise from revealed truth by the grace of a deity or direct mystical apprehension. They are not always fully defensible or understandable using rational means, but they are grounded in special claims to authority. All religions use such authority to support ethical precepts, even Buddhism, which rejects scriptural revelation but not the direct mystical apprehension of reality.

Some scholars would question whether an ethic can be formulated on purely secular criteria. In their view, the fundamental axioms underlying any ethical discussion (for example, the sanctity of life or even what constitutes life) are not empirical truths but are based on an ultimately non-rational faith or revelation of some sort.

This study investigates the views of the following religious communities: Judaism (Orthodox and Reform), Islam, Eastern Orthodox Christianity, Hinduism, Sikhism, Jainism, Buddhism, and Native American Religion. (No Jaina literature on the topics was found, nor a specialist who would comment. One could likely guess that the Jaina view would be a combination of the Hindu and Buddhist positions.) In addition to the discussion, charts are provided to facilitate comparisons among religious groups. ¹

Judaism and New Reproductive Technologies

Judaism has thought more about new reproductive technologies (NRTs) than many religions. The approach of Judaism to NRTs is guided by three principles:

- 1. that all human life is sacred;
- 2. that the family, composed of the husband and wife, has procreation as a basic purpose (Gen. 1:28);
- 3. that Jewish identity is established by the embryo being gestated by the mother, while the child's name and inheritance come from the biological father.

Thus, the use of donor semen raises serious complications, while the use of donor eggs is not so problematic. Since the role of the mother in gestating the embryo is crucial for Jewish identity, the use of a surrogate mother is unacceptable. Such a situation would be viewed as mere adoption. Single or no-partner parenting through NRTs is permitted but not officially accepted — in Judaism the family is defined as a union that has procreation as its purpose. While accepting this basic premise, Reform Judaism adds the comment that procreation is not the only or even the basic purpose of marriage. Marriage is also intended for companionship; therefore, someone known to be infertile would still be allowed and encouraged to marry.

Prenatal screening plays a very important role in Judaism in that prospective parents routinely undergo genetic testing for Tay-Sachs disease because of its commonness among East European Jews. Should both partners have the genetic disorder and decide to marry anyway, abortion may not be approved in the event of a deformed fetus. Nor would disorders such as Down syndrome be judged grounds for abortion.² However, very serious fetal abnormalities leading to early death might well be considered grounds for abortion, which should then take place within the first 40 days of pregnancy. Danger to the life of the mother at any time during pregnancy is also accepted as grounds for abortion by all Jews, from the Orthodox to the Reformed. The question of "mental anguish" as grounds for abortion remains unresolved. It should be noted, however, that Reform Judaism is publicly on record as "pro-choice."

Sex selection is not allowable under any circumstance.

Research on an aborted fetus if it occurred in the process of clinical treatment is judged acceptable if it aids in the saving of life. But such a benefit must be seen to be direct (a specific case to be helped) rather than indirect (happening sometime in the future as a result of the research). Research on a human embryo is not allowed.

In *in vitro* fertilization (IVF), the smallest possible number of eggs should be removed, fertilized, and implanted in the mother. Placing excess fertilized eggs on the cervix would be unacceptable. It is far preferable to implant fewer fertilized eggs with a lower statistical probability of success than to implant multiple fertilized eggs, thus increasing the probability of requiring some form of embryo reduction.

In Jewish history, surrogacy is allowed for by polygamy and levirate marriage. Polygamy was allowed in Judaism until prohibited by a rabbinic

decree, or *takkanah*, in the eleventh century. The institution of levirate marriage stated that when a husband died without children, the brother-in-law was obligated to marry the widowed wife and father children; however, levirate marriage is no longer practised.

In Judaism, emphasis is placed upon the importance of knowledge of paternity in order to prevent subsequent occurrences of incest, which is a cardinal religious issue. Thus, if situations of donor sperm were contemplated, knowledge of the identity of the donor would have to be made known to at least the rabbi. Decisions involving NRTs would be arrived at by discussion among the couple or individual concerned, the rabbi, and the doctor. Jewish law in these matters tends to be casuistic rather than normative; that is, it deals with individual cases in which it tries to apply often conflicting religious and ethical principles. There is much room for adaptation to the modern technological world.

It must be noted that within normative Jewish legal tradition it is valid for a plurality of rabbinic opinion to exist, even if these opinions are mutually exclusive of each other. The views presented above represent commonly accepted rulings. However, a couple may adopt an individual rabbinic opinion that is not commonly accepted. For example, a minority opinion may hold that conception rather than gestation is decisive in determining maternal identity. Discrepancies between two opposing rulings can be resolved through the binding decision of a rabbinic court. While there is a substantial amount of agreement on key issues, in individual cases the rabbis often take considerable latitude.

Reform Judaism further notes that it allows considerable freedom of choice in NRT matters. While Reform rabbis are guided by Jewish law, it is not necessarily the sole or final factor in the rabbi's decision.

Judaism (Orthodox and Reformed)

1. Ensoulment	Life	is	considered	to	begin	at
	conc	epti	on.			

- 2. Prenatal diagnosis for genetic Is encouraged due to prevalence of disorder certain genetic disorders.
- 3. Abortion Is not permitted except for therapeutic purposes and is least restricted within the first 40 days.

For health of mother Could be agreed to by rabbi with physician on either physical or psychiatric grounds.

For growth abnormality of child Is generally rejected, but it may be (e.g., missing arms and legs, parts of brain)

Is generally rejected, but it may be allowed for psychiatric reasons.

For genetic disorder

Is not encouraged for mild disorders (e.g., Down) but may be permitted for serious cases.

4. Artificial insemination

Is permitted, especially when there is a mechanical obstruction.

From husband

Is permitted; masturbation for this purpose is accepted.

From donor for married mother

Is problematic. The use of the semen of a Jewish donor is forbidden, although the severity of the prohibition is debated (e.g., whether it constitutes adultery). Incest, lack of genealogy, and complications regarding inheritance are additional problems.³

From donor for single/no partner

Is not allowed by the Orthodox tradition; however, Reformed Judaism, while discouraging single parenthood, maintains that it is not legally prohibited.

5. *IVF*

Remove as few eggs as possible and implant all fertilized eggs.

Regular (with wife's eggs and husband's sperm)

Is allowed and is treated the same as artificial insemination from a husband.

Egg donation (eggs from another woman)

Raises problem of Jewish identity, but is acceptable so long as gestated by the mother.

Surrogacy

Is not permitted; the baby would not be considered Jewish. Nor can money be exchanged, since by Jewish law people cannot be sold.

Complete (donated egg, sperm, and womb)

Would be seen as mere adoption.

6. Sex selection

Is not acceptable under any circumstances.

7. Use of aborted fetal tissue for research

Is allowed if the research is in a clinical setting and is part of a treatment (e.g., for Parkinson's disease).

8. Research on human embryos

According to one scholar, research is allowed that benefits reproductive technologies, diagnosing and treating genetic aberrations, contraceptive research, and therapeutic transplantation to adults with life-threatening conditions.⁴

9. Irreducible unit of social life

Is a family composed of husband and wife, which has procreation as its purpose.

Islam and New Reproductive Technologies

Some Sunni scholars would question whether it is possible to formulate an ethic under secular criteria. Some argue that a Muslim should live in an Islamic theocracy where the ethics of the state are those of the Muslim religion. However, living as a minority community in secular, pluralistic Canada requires a revision of this premise. There are also Muslim countries such as Turkey where secular law prevails, in spite of the wishes of some Muslim theologians to the contrary.

In Islam, the beginning of life is seen to occur at the moment of conception, but it is a separate act of ensoulment after 120 days that creates *human* life. Therefore, abortion is permitted up to 120 days, and later abortions are permitted when the health of the mother is in danger.

Artificial insemination from the husband's sperm is accepted, as is masturbation to obtain the sperm, but the use of donated sperm is rejected as a case of adultery. Artificial insemination for a single person or someone without a partner is also judged to be adultery.

IVF using the wife's eggs and the husband's sperm is acceptable, but the use of egg donation is considered adultery and is unacceptable. Surrogacy is also rejected; however, in Islam surrogacy is allowed for by polygamy, with each husband being allowed to marry up to four wives provided he can treat each of them with justice.

While the use of NRTs for sex selection is forbidden by religious law, Islamic families originating in the Near East or Asian cultures where dowry traditions make sons a source of wealth and daughters a drain on family fortunes may find the practice of sex selection very tempting. Offering medical services that allow both sex selection and abortion will introduce severe social and moral pressures into these families, especially upon the women.

The question of research on fetal tissue of human embryos has not been the subject of much discussion to date within Islam. The high value placed on life and the judgment that life (though not *human* life) begins at

conception suggests the view that all fertilized eggs should be implanted in IVF procedures, but this is open to debate.

In Islam, the opinion of the scholar-jurists is just that, an opinion. The role of these scholars in Islam is very much like the role of the rabbis in Judaism and very different from the role of the Vatican in Roman Catholicism.

Islam

1. Ensoulment Conception is seen as the beginning of a new living thing, but it is the separate act of ensoulment at

120 days that creates human life.

2. Prenatal diagnosis for genetic disorder (leading to abortion)

Is acceptable up to 120 days.

3. Abortion

Is tolerated up to 120 days by a majority of jurists,⁵ although there is a strong emphasis on the sanc-

tity of life.

For health of mother

Is tolerated much more than for birth control.

For growth abnormality of child (e.g., missing arms and legs, parts of brain)

Would be unlikely to receive approval after 120 days.

For genetic disorder

Is acceptable up to 120 days.

4. Artificial insemination From husband

Is accepted. Masturbation to obtain semen is accepted.

From donor for married woman

Is rejected as adultery.

From donor for single/no partner

Is unacceptable.

5. IVF Regular (with wife's eggs and husband's sperm)

Is acceptable; all fertilized embryos would have to be implanted.

Egg donation (eggs from another woman)

Is unacceptable and judged as adultery.

Surrogacy

Is rejected.

6. Sex selection

Is definitely not accepted. There are strong rejections of female infanticide within the tradition; however, in some South Asian and Near Eastern cultures there is strong social pressure for sons rather than daughters.

7. Use of aborted fetal tissue for research

Before 120 days the fetus is not fully human and therefore according to some scholars can be used for research providing the research is for a therapeutic purpose. This is apparently done now in Egypt.

8. Research on human embryos

Destruction of embryos is unacceptable.

9. Irreducible unit of social life

Is the individual together with the family.

Eastern Orthodox Tradition and New Reproductive Technologies

The roots of the Orthodox tradition in Christianity remain Eastern in that many of its people have emigrated from Greece, Russia, the Ukraine, the Middle East (Syria and Lebanon), Serbia, Romania, and other Eastern European countries. Many of the customs brought with these peoples from their home cultures serve to maintain and even to transmit the Orthodox tradition (the great *Parádosis*). The secular influences encountered in North America are often in conflict with the values of the Orthodox subculture.

Christ, for the Orthodox people, is never a mere teacher or worker of good deeds; rather, he is a living presence in which all of one's life is lived. Christ's living presence eternally resides with us by the power of the Holy Spirit which is Christ's offering of himself for us. This self-offering of the Holy Spirit is experienced by the devotee in liturgy and in the pastor who gives human form to Christ's word and spirit. The pastor's care is marked by an ethical tension between the "ought," the telos toward which the gospel is calling, and the "is" of the devotee's daily experience. In the midst of this tension, the pastor plays the role of a spiritual counsellor, or spiritual father (*Staretz*), whose role is to embody the Holy Spirit in such a way that it helps the devotee "stretch" himself or herself toward the goal of the gospel. This spiritual counsel is given not in the form of ethical pronouncements such as "do not do that" or "do this," but rather in the

form of a wisdom that encompasses all of life — one's own life together with God and one's neighbours.

The Orthodox tradition has given some thought to the implications of this pastoral approach for the use of NRTs, but there is very little discussion of NRTs in the religion's literature.

Eastern Orthodox Christianity

1. Ensoulment

Some patristic authors argued that the fetus does not receive a soul until its body has developed a substantially human form.

2. Prenatal diagnosis for genetic disorder

Only in extreme cases, such as Lesch-Nyhan syndrome, would the usual practice of letting the fetus be brought to term bear with it any moral ambivalence.

3. Abortion

The New Testament makes no specific reference to abortion but does reject drugs which may include abortifacients (Gal. 5:20). In Biblical and patristic Christianity, avoiding reproduction was seen as sinful and the life of the unborn was accorded high value. Abortion of the unensouled fetus was considered seriously sinful but not homicide.

For health of mother

Fetus could be sacrificed to save the life of the mother.

4. Artificial insemination From husband (AIH)

Adoption should be counselled and considered before AIH, but in the case of the latter's desirability both spouses should unconditionally agree.

From donor (AID) for married woman Since the intimacy of love is the cornerstone of marriage, then AIH is far preferable to AID.

From donor for single/no partner

A woman who has considered adoption but then decided against it on solid grounds should prayerfully consider AID.

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	IVF
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Can be considered morally acceptable only if it does not create "extra embryos" that are destroyed, frozen for future use, or used for medical and commercial experimentation. Again, the counsel and consideration of adoption is preferable.

Surrogacy

In either partial (surrogate mother's egg and husband's sperm) or complete form (donated egg, sperm, and womb), is considered reprehensible.

6. Sex selection Preconception (IVF, pre-implant)

Interfering with the Creator's natural shaping of creation in non-life-threatening areas is to be avoided.

By termination (abortion)

Stronger prohibition than by preconception.

7. Use of aborted fetal tissue for research (e.g., treatment for Parkinson's disease)

If the fetal tissue is not produced commercially for this specific purpose but is the result of strictly controlled procedures from unavoidable abortions, then the residue may and should be used.

8. Research on human embryos

Would not be considered morally acceptable.

9. Irreducible unit of social life

The individual in relation to God, family, and neighbours.

Hinduism and New Reproductive Technologies

Fundamental to the Hindu world view is the notion that each person is being continually reborn. This view is shared by Jains, Buddhists, and Sikhs. What a person does in each life conditions the circumstances and predispositions that will be experienced in future lives. The importance of this consideration for NRTs is that the rebirth of a fully developed person, who has lived many previous lives, occurs at the moment of conception. From the moment of conception, we are dealing with a human person.

Hinduism, therefore, quite naturally, views abortion as murder and therefore unacceptable except for the purpose of preserving the mother's life.⁶ The distinction between a human being and a human person made

in some Western discussions, with its implication of the permissibility of at least early abortion, does not occur in Hinduism. Personal moral status is granted to the embryo/fetus from the moment of conception and throughout pregnancy. As well as relating to concepts of karma and rebirth, this approach to abortion is further grounded in the great respect for the principle of *ahimsa*, or non-violence, that is maintained by Hinduism.

If we look to India, a modern secular state in which Hinduism is the majority religion, we find that abortion is permitted by law under certain circumstances, but the topic of the moral status of the unborn and of abortion has been little discussed. In public, the topic is taboo. Yet it is clear that illegal abortion has a long history and continues today. While the texts dealing with religious law and ethics are very clear in condemning the wilful killing of a fetus, it is also true that these texts have very limited bearing on daily life. Many people are not even aware of them; others quite easily and happily ignore them. The texts simply do not have the compelling authority that scripture may have in some other religious traditions.

Abortions are done fairly regularly in India for a number of reasons, and in recent years the principal ones seem to be related to sex selection or family planning. Since boys are valued more than girls in many communities, sonograms/amniocenteses are performed and female fetuses are aborted. Statistics available from the state of Maharashtra show that in recent years there has been a dramatic drop in the number of live births of girls. In the past (about 30 to 40 years ago), students in many medical schools in India had the general impression that abortions could only be done in some "Christian" clinics (the name given to Western-style clinics), but not in government hospitals or by Indian doctors. Now, many hospitals in India carry out these procedures fairly routinely, and most of the

clientele is apparently Hindu.

Infertility (or even the lack of a son) has been considered justification for some form of surrogacy practice. Often this has been accomplished by allowing polygamy. In Hinduism, there has also been the practice in which a man marries the childless widow of his deceased brother. Surrogacy by natural means and under certain circumstances seems to be allowable within the boundaries of the family. The integrity of the extended family is of ultimate importance, since it forms the essential "self" from which all individual family members receive meaning and identity. The idea of someone from outside the extended family being involved in some kind of surrogacy practice would seem unlikely to receive acceptance by the cultures involved. From this perspective, the very idea of single motherhood (or for that matter fatherhood) by choice is unlikely. In this extended family context, all discussion of NRTs will be approached not only with respect to the wife involved but also the husband and the family as a whole. The autonomous, individualist approach to moral questions that typifies the modern West is very foreign to members of the Hindu tradition, even after the family has lived in Canada for two or three generations.

Perhaps even more important than notions of karma, on the popular level great importance is placed on biological descent; therefore, artificial insemination with sperm other than the husband's would not be tolerated. In higher castes, there is a notion of keeping the purity of one's caste and clan (gotra), and artificial insemination from a sperm bank would be intolerable. (For similar reasons, even adoption of an unknown child would be unacceptable for many Hindus.) A Hindu woman in India carrying a child other than her husband's would be likely to incur family and community ostracism or, at the very least, disapproval. However, if a woman could be artificially inseminated with her husband's sperm and the child carried to term, a childless couple would definitely accept the procedure; there would not be any taboo against unnatural technological intervention. Urban Hindu men and women have generally been accepting of Western medical procedures, and medical help in this regard would be welcomed rather than rejected. Many childless couples from India come to Western countries for advanced tests and help with reproductive technology without prejudice.

The question of IVF is a complicated one when seen from the perspective of Hinduism. Fertility is important — especially the conception and birth of a son. IVF appears attractive to wives and husbands who are having difficulty in conceiving and giving birth to children. Modern India seems to be using IVF enthusiastically. When it is considered by scholars, however, it becomes a very serious issue, since the destruction of any embryo would be considered murder. IVF poses a serious dilemma unless all fertilized embryos are implanted. However, in practice, abortions are performed regularly, so for many members of the general population the destroying of embryos may not present a great moral dilemma.⁹

In Hinduism, there are certain religious rituals that must be performed by a son if one's afterlife is to be secured, and the dowry practice makes sons a source of wealth for the family and daughters a drain on family fortunes. Thus, any offering of medical services that allow both sex selection and abortion will introduce severe social and moral pressures into these families. The conflict between the desire for sons (and the possibility for ensuring them through the new technologies) and the proscription against abortion will place severe moral strains on some families, especially upon the mothers involved. In Hindu ritual practice, there are rituals designed to aid in giving birth to a son, but these rituals never involve abortion.

The issue of commercialization is also of concern to the family units of the Hindu religion. While the religion would not condone the opportunities for commercialization NRTs might spawn, the family and social structure might well encourage such developments. One has only to look at what has happened in the area of organ transplants (with special flights to India where organs of all kinds can be obtained for money by Westerners) to think of possible NRT parallels. It is not simply that the poor are selling their organs, but that at times even a husband volunteers to sell an organ of his wife. The prospect of earning money from paid

surrogacy is surely not far removed, given the presence of the requisite technology.

Hinduism

4. Artificial insemination

1.	Ensoulment	Occurs	at	the	moment	of	con-
		ception.					

2. Pren	natal diagnosis	Genetic screening of intended husband and wife before marriage would probably <i>never</i> be acceptable, particularly for the intended
		able, particularly for the intended
		husband.

3. Abortion	Due to presuppositions of karma
	and rebirth, abortion is viewed as
	the murder of a human person and
	is therefore usually unacceptable.

For health of mother	Acceptable for the purpose of pre-
	serving the mother's life.

For growth abnormality of child	Would not be legally accepted but
(e.g., missing arms and legs, parts	may be followed in practice.
of brain)	

For genetic disorder	of the fetus	Would not be acceptable.
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From husband	Will	be	accepted	by	a	childless
	coup	le.				

From donor for married woman	Is rejected because of the dangers
	of the mixing of caste and karma,
	thus disrupting individual, family,
	and societal order (rtg).

From donor for single/no partner	Is rejected since extended family is
	the unit of procreation.

5. IVF	Has not yet been thought through
	by the scholars. When it is, any
	destruction of embryos will be
	judged to be abortion and rejected,
	yet this may not have much impact
	on practice

Regular (with wife's eggs and	Because of the emphasis on fer-
	tility and having a son, will be very
*	appealing to some couples.

Egg donation (eggs from another woman)

Would be unacceptable since extended family is the unit of procreation.

Surrogacy

Surrogacy involving NRTs would be rejected for the same reason. Instead, the tradition has allowed for polygamy to solve the problem; however, polygamy is no longer viable for the educated urban population.

6. Sex selection

Religious law rejects sex selection by abortion or any other means; social practice, however, reveals a long history of female infanticide. There will be strong pressure to use NRTs to ensure sons rather than daughters for religious and economic reasons. There already evidence that NRT is being used for sex selection in India. female amniocentesis. a After embryo is often aborted.

7. Use of aborted fetal tissue for research

Would probably be rejected.

8. Research on human embryos

Would not be allowed.

9. Irreducible unit of social life

Extended family is the fundamental unit of social life. It has as a major private and public purpose the procreation of children. The extended family is *extremely* important.

Sikhism and New Reproductive Technologies

Fundamental to the Sikh world view is the notion that each person is being continually reborn. What a person does in each life conditions the circumstances and predispositions of future lives. The importance of this consideration for NRTs is that the rebirth of a fully developed person, who has lived many previous lives, occurs at the moment of conception. From the moment of conception, we are dealing with a human person.

The Sikh presuppositions of karma and rebirth mean abortion will be seen as the murder of a human person and be unacceptable except for the purpose of preserving the mother's life. Personal moral status is granted to the embryo/fetus from the moment of conception and throughout the pregnancy. In addition to karma and rebirth, this approach to abortion is further grounded in great respect for the principle of *ahimsa*, or non-violence. In Sikh thinking, human life is a gift from God and no individual has the right to alter or destroy this state in any way.

Sikh religious leaders are trying to grapple with the issues raised by the use of NRTs. It is to the *Rehat* that Sikhs often turn when they have to decide on issues of social ethics. There is nothing on NRTs in the Sikh *Rehat*, which is hardly surprising considering that the present authoritative version of the *Rehat* dates back to the 1950s, when there was hardly any discussion on what challenge NRTs pose for Sikh society. With the increasing availability of NRTs, particularly to the members of the Sikh diaspora, some thought has been given to this issue, and the resolutions that are offered are all drawn from what the Sikh normative tradition has to say.

The actual practice in South Asian cultures, including among the Sikhs, has been known to depart from the normative. Female infanticide and illegal abortion have been practised. In Sikh cultures, sons have been valued over daughters, and thus there are temptations to use NRTs for sex selection so as to ensure the reproduction of sons. When the Government of India made abortion legal, there was no sustained opposition to this law on the part of Indian religious communities. Today, abortion clinics are common in Punjab, the original home for most of the Sikh population in Canada.

It is impossible to make any blanket statements on artificial insemination or IVF in Sikhism. Theologically, these practices would be viewed as interfering with the *Hukam*, the order of God, a central feature of the Sikh world view. However, once again these procedures are tolerated in practice. Some Sikh couples have decided to use IVF. Since the norm disallows abortion, it also would not accept aborted fetal tissue for research purposes.

On the commercialization issue, sections of the Sikh population resident in Canada have firmly and very vocally opposed the use of ultrasound scanning techniques for the purpose of identifying the sex of a fetus. They fear that this sex-determination technology will lead to predominantly male selection.

Sikhism

1. Ensoulment

- Occurs at the moment of conception.
- 2. Prenatal diagnosis for genetic disorder
- Would itself be acceptable, but abortion as a result would not.

3. Abortion

Is unacceptable. All abortion is murder.

For health of mother

Is acceptable.

For growth abnormality of child (e.g., missing arms and legs, parts of brain)

Is not allowed.

For genetic disorder

Is not allowed.

4. Artificial insemination From husband

Is acceptable, as is masturbation to obtain sperm.

From donor for married woman

Is unacceptable.

From donor for single/no partner

Is unacceptable, because the family is the basic social unit.

5. IVF

All of the procedures will be seen as a violation of *Hukam*, the order of God, but will probably be accepted in practice.

Regular (with wife's eggs and husband's sperm)

This procedure will be very appealing to families experiencing difficulty having children, given the emphasis upon fertility in Sikhism.

Egg donation (eggs from another woman)

Has not yet been discussed.

Surrogacy

Has not yet been discussed.

6. Sex selection

Is firmly rejected; however, social practice places families under great pressure and temptation to ensure sons rather than daughters by the use of such NRTs.

7. Use of aborted fetal tissue for research

Is not acceptable.

8. Research on human embryos

Is not permitted, since all fertilized eggs are seen as human persons.

9. Irreducible unit of social life

Is the family.

Buddhism and New Reproductive Technologies¹⁰

According to Shoyo Taniguchi, in the Buddhist theory of karma and re-existence, present life is a continuation of a conscious process that has been existing in many past lives. At the moment of death, this conscious process, which is an accumulation of information, leaves the present body and continues to exist in a different physical unit. Arrival of this conscious process in a form of energy, at the moment of unity of sperm and egg, is a necessary condition for the beginning of new life. From a Buddhist point of view, what we call a "fetus" is this conscious process which now exists in relation to the new physical unit. Therefore, a fetus consists of the conscious process of a fully developed being. At birth, a baby is carrying all of the information carried by a deceased person, although it is now hidden in the subconscious and may not be easily accessible. Thus, from the moment of conception, we must be critically aware that we are dealing with the human person.

The Buddhists teach that life is dear, and all beings fear death. Based on this understanding, Buddhism strongly discourages people from harming others or taking another's life in any circumstances. The Buddhist principle of cause and effect indicates that harming others is ultimately harming oneself. For this reason, abortion is not advisable.

Buddhism does not set rules to bind people. Buddhism teaches that with the reduction of one's self-centredness, one will be able to avoid taking the life of others even at the risk of one's own life. On this level of selflessness, a pregnant woman may choose to keep and nourish a child

lovingly, even if the pregnancy is caused by rape.

The Buddha spoke against the subjugation of women in contemporary Indian society. He affirmed total equality of women and men. He also opposed practices centred on male offspring, and Buddhist women had little or no pressure to produce male children. In Buddhism, unlike Christianity or Hinduism, marriage is not regarded as a sacrament or sacred union, but as a secular, civil affair. However, Buddhism went to some Asian countries where the subjugation of women had been practised for centuries. The original teaching of equality of women and men seems to have had little or no impact on these cultures. Practices such as female infanticide, polygamy, or some form of surrogacy in order to ensure the reproduction of male children seem to have continued in these cultures, in spite of the teaching of the Buddha.

The major theory of Buddhism is that certain effects can be generated when the necessary causes and conditions come together, or eliminated when the causes and conditions are removed. There is no prohibition in Buddhism against generating the desired effect by changing the causes and conditions. Technologies such as artificial insemination from a husband or other donor and IVF can be accepted as long as they do not cause pain

and suffering to those parties involved.

Fetal tissue from a fetus that is already aborted could be used for research. From a Buddhist point of view, the dead body, once separated from the conscious process, is just like a piece of wood. But it would not be acceptable for researchers to deliberately abort a fetus in order to take its fetal tissue.

We can use modern knowledge and technology to bring peace and comfort to many. That knowledge can also be misused by people who are driven by greed, hatred, and delusion, which are regarded as the roots of self-centredness in Buddhism. Fears of commercialization and the misuse of knowledge and technology apply to NRTs as they do to knowledge or technology developed in any field of science.

Buddhism

1. Ensoulment

There is no ensoulment theory, but the arrival of a conscious process (a full human being) occurs at conception.

2. Prenatal diagnosis for genetic disorder

Is acceptable if it is done for treating or improving a fetus with a genetic disorder.

3. Abortion

Is not recommended because it is regarded as taking life, but there are no rigid rules prohibiting one from aborting. Decision is up to the individuals involved.

For health of mother

Is not recommended.

For genetic disorder

Is not recommended.

4. Artificial insemination From husband

Is acceptable.

From donor for married couple

Is acceptable.

From donor for single/no partner

Is acceptable when the person is capable of giving proper care to the child.

Masturbation to obtain semen

Has no conflict with any Buddhist teachings; it is acceptable.

5. IVF

In all forms (regular, egg donation, usual and complete surrogacy) is acceptable as long as proper care is given to the child and the technology does not generate pain and

suffering to any party involved. Once one causes eggs to be fertilized, then the proper care should be given to all fertilized eggs by implanting them.

6. Sex selection

Preconception (IVF, pre-implant) Buddhism has no problem in artificially selecting the gender of a fetus as long as it does not harm the fetus.

By termination (abortion)

Is not advised.

7. Use of aborted fetal tissue for research

Is acceptable, but an abortion should not be performed to get fetal tissue.

8. Research on human embryos

May be acceptable if harm, pain, or death is not inflicted upon the embryo.

9. Irreducible unit of social life

Each individual is an equally important unit of the society.

Native Spiritual Practice and New Reproductive Technologies¹¹

Native traditions place a high value on the sacredness of human life. In Native cultures, children are especially valued. Life is judged to begin after "quickening," when the entering of "Spirit" into the fetus is felt by the mother. Contraceptives and abortion were accepted and practised according to cultural canons specific to tribal groups and bands, but have become increasingly unacceptable as a result of the impact of European Christianity. In many communities, the mixture of Native and Christian runs deep and makes for an, at times, confusing situation:

Historical evidence and oral traditions indicate that contraceptive devices and abortants were well known and utilized in pre-Christian Native communities. The change in attitude towards abortion and birth control reflects the process of cultural transformation Native peoples have undergone as a result of assimilation and Western Judeo-Christian indoctrination. The disuse and rejection of these practices corresponded in direct proportion to the adoption of Christianity, and its concomitant values, among the Native populations. As Native people adopted Christianity, their family sizes grew. A useful example illustrating this point is a comparison of average family sizes in the mid- to late 19th century among the Métis who were Catholics and non-Christian traditionalists on the Western Canadian Plains. Métis families averaged

around six children who were closely spaced together. Plains Cree families (non-polygamist), on the other hand, averaged two children and these were widely spaced between three and five years. The contrasting attitudes towards contraception and abortion that presently exist in Native communities must be understood within this context.

A blanket generalization on Aboriginal attitudes towards abortion and contraception cannot be made because of their varied degrees of cultural transformation and because there are many distinct Native American religions in Canada. The handful of traditionalists who continue to practise their religions and have rejected those aspects of Christianity that conflict with their traditional beliefs generally accept abortion and birth control if their religions accepted these. While I do not have any knowledge of tribes who outright prohibited contraceptives and abortion, some may have. Those who have accepted Christian teachings that prohibit birth control and abortion reject the practices according to their Christian beliefs. I would also make the point that Native communities are not untouched by the pro-choice movement; growing numbers of Native people support this movement on the same basis as European Canadians do. 12

At the time of contact with the European cultures there were over 500 Aboriginal nations with their own separate religions, many of which still survive today (e.g., the Plains Sundance religion and the Woodland Midewiwin Lodges). The impact of European Christian religion upon the Native traditions has resulted in newly emergent syncretic religions, such as the Native American Church (Peyote Cult) and the Native American "It is also the case that Native communities have Shaker Church. indigenized Western institutional religions to the point where the practices are almost unfamiliar to the original doctrines. Furthermore, there will always remain opposing ideologies within specific religious groups on reproductive technology because it is potentially an emotional issue and explicitly individual."13 Forced sterilization programs were imposed on many Native communities between the 1950s and the 1980s and "in more secluded northern areas, forced sterilization still occurs."14 This experience will certainly colour the Native attitude to NRTs.

In Native cultures, traditional Medicine People have often given guidance on these matters:

Medicine People generally have at least one area of specialization and there are still a number who specialize in contraceptive medicines and techniques. Generally, a Medicine Person would specialize in either birth control or abortion, and usually know one or a few techniques. Very few practise both or have a wide range of knowledge. The decision to abort or use contraceptives is initially an individual one; however, it was not carried out without the specialist who acted as both counsellor and doctor. ¹⁵

My respondent has filled out the accompanying chart specifically from the perspective of the Woodland Cree. She warns against any generalization of these Woodland Cree positions and reminds us again of the great diversity among Native cultures and religions. Before any generalizations can be made, more research is required into the views of the other Native American religions until at least a representative sample is obtained.

Woodland Cree

- 1. Ensoulment
- 2. Prenatal diagnosis for genetic disorder (leading to abortion)

3. Abortion

4. Artificial insemination

5. *IVF*

Regular (with wife's eggs and husband's sperm)

Egg donation (eggs from another woman)

Surrogacy

6. Sex selection

7. Use of aborted fetal tissue for research

Is not acceptable. Once life in the womb has begun, it is understood to be predestined.

The decision to abort is weighed with the best interests of the family and community, then determined according to the family's and community's ability to support another member. Abortion is only sustained prior to the commencement of life, which occurs at the point when spirit is judged to have entered the fetus (when the mother feels movement).

Is not acceptable for married or single persons. Childless couples or individuals are encouraged to adopt.

Is not accepted. If fertilization does not occur naturally, that is understood to be predestined. Spiritual healing is an option, as is adoption or surrogate motherhood.

Is not acceptable.

Is not acceptable.

(Husband's sperm and donated egg and womb) was accepted and common in polygamous marriages.

Is not acceptable. Female and male children are equally valued.

Is not acceptable. Traditional burial canons and practices prohibit the mutilation of the body.

8. Research on human embryos Is not acceptable.

9. Irreducible unit of social life Is the family and community.

Acknowledgments

The contributions of Rabbi David Lichtman, Calgary; Rabbi Elyse M. Goldstein, Toronto; Dr. Sheliah McDonough, Concordia University, Montreal; Father John Tkachuk, Montreal; Dr. Vasudha Narayanan, University of Florida; Dr. Harjot Oberoi, University of British Columbia, Vancouver; Ms Shoyo Taniguchi, Ph.D. student, University of Southern California at Berkeley; and Ms Winona Stevenson, Ph.D. student, University of Southern California at Berkeley were invaluable and were greatly appreciated by the author and the Commission.

Notes

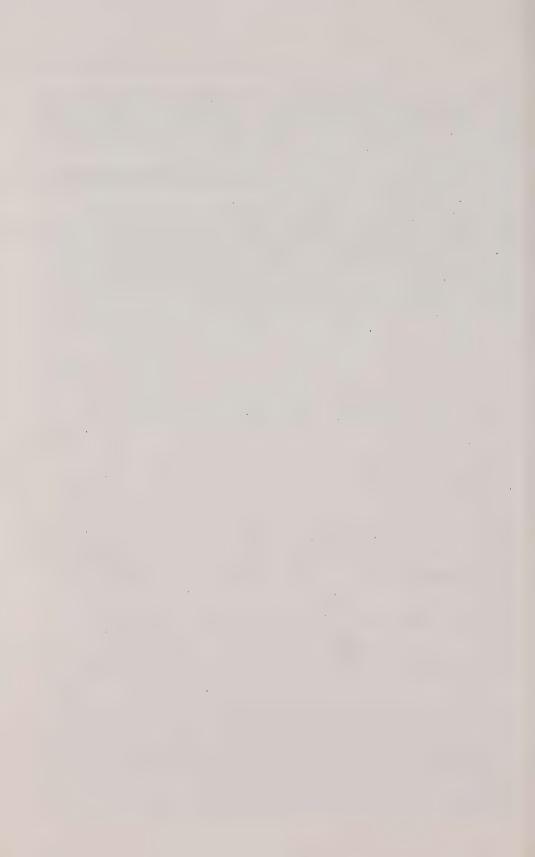
- 1. It should be remembered that most of the topics addressed have not yet been given serious systematic consideration by the communities in question, with the exception of the Judaic community.
- 2. Judaism does not consider a physically or mentally handicapped person to be of lesser value than a person with no apparent handicap, or to be under punishment from God. In fact, there exists a blessing to say upon meeting a handicapped person, which thanks God for "varying the kinds of creatures."
- 3. For more discussion see J.G. Schenker, "Religious Views Regarding Treatment of Infertility by Assisted Reproductive Technologies," *Journal of Assisted Reproduction and Genetics* 9 (1) (1992), 4-5. The author notes that in spite of all these problems the practice of artificial insemination from a donor other than the husband is accepted by part of the Jewish population in Israel and is allowed by the Ministry of Health in special circumstances.
- 4. Ibid., 7.
- 5. B.F. Musallam, Sex and Society in Islam: Birth Control Before the Nineteenth Century (Cambridge: Cambridge University Press, 1983), 57.
- 6. J. Lipner, "A Classical Hindu View of Abortion and the Moral Status of the Unborn," in H.G. Coward, J.J. Lipner, and K.K. Young, *Hindu Ethics: Purity, Abortion, and Euthanasia* (Albany: SUNY Press, 1989), 60.
- 7. My informant, Dr. Vasudha Narayanan, states that "according to both religious texts and popular practice in the Hindu tradition(s), the embryo/fetus has life and, in some rare cases, is even capable of hearing the conversations that take place around it and learning from them. It is clear that the fetus is an entity; people do not bow before pregnant women, because in the Hindu tradition one can only bow down and pay respect to people older than oneself. Since there is a young child, a real entity, within a pregnant woman, bowing before her would mean one is paying respect to the baby also and this should not be done. It would therefore be logical

and correct to say that killing the embryo is tantamount to murder. Despite this fundamental belief, abortions have been conducted legally and illegally in many places in India, without much apparent guilt on the women's part about the process. My statement here is only based on impressions and conversations with women doctors from India, but I suspect that a full-fledged study may verify them."

- 8. E. Bumiller, May You Be the Mother of a Hundred Sons: A Journey Among the Women of India [reports on many clinics specializing in these procedures in Bombay] (New York: Random House, 1990).
- 9. Dr. Narayanan observes, "Myths in Hindu epics and *puranas* are filled with supernatural or 'unnatural' means of conception and giving birth. In the *Mahabharata* we encounter the story of a hundred embryos being grown in pots by Gandhari. In other texts, we see an embryo being transplanted from one woman to another (Krishna's brother Balarama was said to have been transplanted into another womb when still in an embryonic stage); divine potions are consumed and children produced fairly regularly; deities are invoked and 'fertilize' the woman if the husband is not capable of procreating, and so on. However, as far as I know, none of these tales have been invoked as authoritative or legitimating instances in connection with NRTs. What we have to recognize is that despite notions of embryonic life, karma, et cetera, decisions on abortions and NRTs are more likely to be made based on how badly a child, especially a boy, is wanted by the couple or family or, in the case of abortion, how badly a child is *not* wanted by the woman."
- 10. The statement on Buddhism was written by Shoyo Taniguchi.
- 11. Winona Stevenson was the source of my information on Native Spiritual practice.
- 12. Ibid.
- 13. Ibid.
- 14. Ibid.
- 15. Ibid.

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Personal Experiences with New Reproductive Technologies: Report from Private Sessions

RCNRT Staff



Introduction

As part of its program of consultations with Canadians, the Royal Commission on New Reproductive Technologies offered private, or "armchair," sessions to individuals or couples who had personal experiences with one or more of the new reproductive technologies. This report synthesizes their experiences, concerns, and suggestions. The descriptions, opinions, and conclusions are theirs.

Nearly 500 individuals and/or couples who contacted the Commission were offered one of four ways to discuss their experiences. These were

- a private telephone discussion with an experienced interviewer;
- a private meeting with one or more Commissioners and a facilitator;
- participation in a small group discussion with six to eight people with similar experiences, usually with in vitro fertilization (IVF).

This paper was completed for the Royal Commission on New Reproductive Technologies in March 1992 and released in May 1992.

One or more Commissioners and a facilitator were present at these sessions; and

submission of written or taped accounts.

All participants were assured that the confidentiality of their information would be maintained. All information that might identify individual participants has been removed from this summary.

There were 60 telephone discussions across the country. Most took place in February and March 1991. Eleven small group sessions and 30 private meetings were held across the country in May and June 1991. Each person was heard in the language of her or his choice.

The primary objective of the private sessions was to provide an opportunity to individuals and couples to share their experiences and to voice their concerns. People were asked what specific suggestions they would like to make to the Commission to assist Commissioners in their deliberations. Although interviews were not formally structured, an interview guide was developed to draw out baseline data to assist with the synthesis and analysis of the information obtained. Sessions lasted from one to four hours.

The Commission emphasizes that the material contained in this paper is a summary of what individuals and couples from across the country said at the private sessions. In that sense, it is not a comprehensive analysis of the issues, nor is it a research study.

Ages ranged from mid-20s to late 40s. Telephone interviews were especially effective for reaching those living in rural or isolated areas, for whom it was difficult to travel long distances to meet with the Commission. The majority of participants with personal experiences were concentrated in Ontario, and IVF was the technology most frequently discussed; however, the Commission heard experiences with the full range of technologies in its mandate. Most sessions were held in English, but some sessions were held in French. Single women as well as one single man and some lesbian couples were heard in private sessions.

What We Heard — Technologies and Practices

Drugs

From the experiences of those who spoke to the Commission, fertility drugs were almost exclusively prescribed to women; only a few men had been prescribed drugs for low sperm count. Virtually all the women who spoke about the drugs initially felt the risks were outweighed by the chance

for a baby, and very few women chose not to take them. Some women became concerned about the drugs only after the infertility treatment ended; they are having regular physical check-ups "in case something shows up." Some women said they were prepared to risk their own health but not that of the baby that might result. Some had wanted information about the drugs in order to make an informed decision, while others said they preferred to trust the doctor. One woman said that doctors replied to her questions with "don't worry, these are safe." One woman felt reassured that government regulations would protect her from being a "guinea pig."

Some women were not sure what drugs they had taken in the course of infertility treatment. Clomid[®] and Pergonal[®] were the drugs women said they were most frequently prescribed, sometimes by general practitioners.

Many women reported a lack of monitoring of drug levels, and there were cases cited of apparent drug overdose and of severe side-effects. For example, one woman was told that there were some short-term effects and immediate risks but also that "we've used these drugs for years." She later needed to stop taking the drugs because of cysts. Another woman said she was told the drugs could cause cancer. Women had varying side-effects, including depression, cramps, and hyperstimulation syndrome.

A number of women were concerned about the result of ovarian hyperstimulation, but they were willing to take the drugs to have a chance of having a baby. A number of women reported ovarian cysts as a result of fertility drugs. For example, one woman said she had to have an ovary removed following IVF because of numerous cysts. She is concerned about the long-term drug effects, as she now has a lot of pain in her remaining ovary.

Virtually no one mentioned concern about the combination of fertility drugs and other medication, or fertility drugs and health conditions, including two women with previous ovarian cancer.

Artificial Insemination

Artificial insemination is not new and, in its simplest forms, is not truly a technology. It was, however, one of the commonly considered responses among participants to an inability to have a child if the cause was low sperm count or unexplained. It generally takes two forms: insemination with the partner's sperm, and insemination with donor sperm.

Partner's Sperm

People in the private sessions indicated that artificial insemination with the partner's sperm tended to be used in cases of infertility resulting from low sperm count, low sperm motility, hostile cervical mucus, husband-wife blood incompatibility, and idiopathic (unexplained) infertility.

They said that insemination was most frequently carried out by individual doctors in their offices or at fertility clinics. Many women were prescribed fertility drugs for ovarian stimulation to work in conjunction with the insemination. Couples told the Commission that the sperm was

usually washed, then inserted into the uterus (known as IUI or intrauterine insemination).

Most of the couples who had tried this technique were unsuccessful. The majority elected to move on to try donor insemination or other technologies such as IVF, gamete intrafallopian transfer (better known as GIFT), or synchronized hysteroscopic insemination of fallopian tubes (SHIFT). Others decided not to continue with attempts at assisted reproduction and chose to remain without children or to focus on attempts at adoption.

Donor Insemination

Donor insemination was used primarily in response to male infertility, often as a second step if insemination using the partner's sperm was unsuccessful. Donor insemination was also used by single or lesbian women who did not have a male partner.

Access to sperm and information about the donor were the main concerns of those using donor insemination. Some couples reported difficulty in getting information both about the process and about physicians who offered the service. One woman reported that, in 1989, she found only information about animals when she searched under "artificial insemination" at her local library. Her doctor, who had practised in her city for 20 years, knew of no local physician offering donor insemination. The couple commuted to a nearby city for a year before finding, through community organizations, a local physician who would perform the procedure. After eight months of donor insemination using frozen sperm from a donor in conjunction with fertility drugs, the couple had a child. The couple said they intend to tell their child of the donor conception.

Another couple who had a child through donor insemination was urged by their physician, who was acting privately, to maintain secrecy. They said that the strain of the imposed secrecy contributed to the breakdown of their marriage. The mother has concerns about how many children the donor had fathered and whether her child could end up in an incestuous relationship. Her letters to the doctor seeking information about the donor were not answered. She feels children should have legal rights to the medical, social, and biological history of the donor, and that the reason the physician urged secrecy was to prevent knowledge of her husband's infertility from becoming public.

Known Donors

Not unlike open adoption, a few couples preferred to have their children fathered by a donor of their own selection. One couple, who turned to donor insemination because of the man's infertility, made this decision after one attempt at anonymous donor insemination through a physician. They asked a close friend in a stable marriage to be their donor. Self-insemination is planned; the man has had a human immunodeficiency virus (HIV) test and blood work. His wife is supportive of the idea, and the

two couples see each other socially and plan an open relationship, with the child knowing the biological father's role.

Single Women

The other main use of donor insemination is to assist women who do not have a male partner. A number of single women came forward to describe their experiences. One woman, who was in her 30s and wanted to have children, said her options were limited: get married — but there may be no candidate; pick up a man in a bar — which may be unacceptable morally or for health and safety reasons; or find a doctor to do insemination with safe sperm — which is not easy for a single woman.

Access to physicians willing to assist single women with donor insemination varies from region to region. A woman has lodged an official complaint against an institution that refused her donor insemination because it was against their policy to make the procedure available to single women. The reasons cited included

- the waiting list is for couples only;
- the donor's consent form mentions couples only;
- donor insemination is only for the treatment of infertility and not for fertile women; and
- what the clinic considered the potentially disastrous effect of the absence of a father on a child.

One woman has decided to seek a donor through newspaper ads, as she cannot afford to take the time from her job to travel to a centre where she could have access to donor insemination in an institutional setting.

The process appears to be somewhat easier elsewhere. One single woman, for example, found, through her own research and referrals by her family physician, a physician willing to perform the procedure. The doctor agreed to proceed after a series of psychological tests and interviews, and he selected the donor from a private U.S. sperm bank after the woman outlined her preferences. The donor had been screened for HIV and checked medically and psychologically. She has had two children from the same donor, conceiving on her first try both times. Costs (approximately \$4 000 for the two children) were not a barrier for her.

Another woman researched the subject on her own and decided to seek insemination at an American clinic. She had two children. Although she has no information on the donors, she wishes she had used the same donor for both children.

Lesbian Couples

The Commission spoke with several lesbian couples who had decided to seek donor insemination. In these cases, one member of the couple had initiated the process. One couple was able to find a physician willing to perform donor insemination privately. Although an examination revealed no indication of an infertility problem, the woman who wanted to become

pregnant was prescribed ovulatory drugs. The only screening done was physical, and they were not given counselling or asked about their financial or emotional ability to raise a child. The woman gave birth to twins. She retained custody when the couple separated, but the other woman is maintaining a parental relationship with the children, and both women want her to be recognized as a legal guardian of the children.

Another couple had quite a different experience. The woman consulted her family physician, who refused to help and advised her to "stand on the prostitutes' street" to become pregnant. The local infertility clinic said it would provide sperm only to married couples and refused to perform the insemination even if the woman found a donor. Finally, through friends, she found two men willing to donate sperm. A lesbian physician supplied the requisitions for anonymous HIV testing. Four self-inseminations were done per cycle using both men's sperm. After five months, the woman conceived and gave birth to a son. The father is listed as "unknown" on the birth records.

Suggestions from Participants

Participants had a number of suggestions for the Commission about artificial insemination. They felt strongly that legislation or guidelines should be established for sperm banks. They also had a number of proposals about donors, including that donors have complete medical examinations; be subject to a limit on the number of donations and the number of children by donor; inform their partner and obtain consent before donation is made; and receive a nominal annual payment, no matter how many donations.

In terms of access, participants suggested that a partner's consent should not be a condition for donor insemination any more than for any other medical procedure. On one hand, some felt that there should be no discrimination on the basis of marital status, sexual orientation, age, or income; others, on the other hand, felt that access should be denied to single women or lesbians, and it should not be accelerated for older women.

In terms of children born through artificial insemination, some participants felt that children should have access to information, and that a process similar to that for adoption should be established for donor insemination, with records kept in a registry and children given access to the information at age 18, including information about half-siblings. Others, however, felt that the donor's identity should be kept confidential and that legislation allowing the child access to the donor should not be passed.

Several participants were concerned about the legal implications of artificial insemination. Some suggested that legislation should be passed defining a child's legal status when born as a result of donor insemination outside marriage. Others suggested legislation recognizing same-sex parents or social parents, including recognizing custody by a social parent following the death of a biological parent.

In Vitro Fertilization (IVF)

By far the majority of the people who wished to talk privately to the Commission had had experience with IVF, usually in Ontario. Many of these people who came forward to the Commission said they were responding to a letter from their IVF program encouraging them to do so. Others came forward in response to media reports saying some groups want to ban or place a moratorium on new reproductive technologies.

None of the people who had had personal experiences with IVF wanted its practice stopped. People stressed the pain of infertility and the hope that IVF brings to those wanting to have a child. Many women emphasized that using IVF was their choice, not a result of pressure from others.

There are significant differences in the issues raised by IVF users living inside and outside Ontario, because currently it is only in Ontario that the provincial health insurance plan (OHIP) pays for the procedure. Thus, people in other provinces almost always discussed cost, while Ontario residents spoke of waiting lists, which they say are lengthened by "paying customers" from outside Ontario.

People's understanding of success rates for the procedure varied considerably. What was apparent, however, was that whatever rates are quoted, many people believe they will be among the successful. Most participants did not wish to see particular limits on the number of attempts permitted to a couple. Currently, we were told, most clinics restrict couples to three attempts that are successful through the embryo transfer stage. Some people wish to continue for more attempts. One couple has had eight tries so far, because some were completed before OHIP started to pay and others were incomplete.

A theme that arose many times was that of trying for a second birth after one "success." Some couples felt uncomfortable if others in the IVF program knew they already had a child; they felt they would be seen as "greedy." Others said that some programs encourage successful couples to return.

In Vitro Fertilization in Ontario

In Ontario, most infertility treatments, including IVF, have been paid by the provincial health insurance plan for a number of years. This has resulted in lengthy waiting periods (some as long as five years) and limits on the number of IVF attempts permitted. As well as serving Ontario residents, many clinics attract couples from elsewhere in Canada and, reportedly, from outside the country.

There were a number of couples who had attempted IVF in London, Ontario. Included in this number was one couple from out-of-province who had had the husband's sperm frozen during their initial visit so that he would not have to return for further attempts. Most people were positive about their experiences at the London clinic. Several, however, criticized the lack of counselling for couples who were not successful.

The majority of personal experiences with IVF took place in Toronto, at two public clinics and one private clinic (Toronto General Hospital, Toronto East General Hospital, and IVF Canada). Many people were concerned that the private clinic was operated by many of the same physicians who worked in the public clinics, possibly putting the doctors in a conflict of interest. There were also questions about administrative overlap between the programs; one woman, from outside Ontario, said that she applied to the public clinics and had correspondence with them, but that the acceptance letter was from the private clinic.

Judging by those who spoke to the Commission, the private program seems to attract those who want to avoid the waiting lists of the public clinics and can afford the cost of the private program, those who are too old for the public clinics, and a number of couples from outside Ontario. Some

couples attempted IVF at both the private and public clinics.

In Vitro Fertilization Outside Ontario

In the Atlantic provinces, IVF is available only in Halifax. Many people, however, have gone to other provinces, primarily Ontario, for the procedure; some cited the low success rates of the Halifax program as their reason. The people who spoke to the Commission about the Halifax program did so as part of a small group discussion organized by a local physician.

The IVF clinic in Calgary serves much of western Canada. As a result, many people cited long waiting lists as a problem. Others had concerns about the lack of emotional support offered to couples. Age restrictions were also cited by some of those who spoke with the Commission — one couple said they would go to the United States if the woman were cut off

from treatment in Calgary because of her age.

Some couples spoke to the Commission about their experiences with the Vancouver IVF program. One couple described IVF as a ray of hope, despite what they say is a success rate of less than 20 percent. They would have liked more information, however, on the likelihood of ectopic pregnancies and multiple births. Another couple plans to continue trying as long as the woman is healthy, and her doctor has said he will tell her when her chances are slim and she is wasting money. This couple is on waiting lists for IVF in Europe and the United States but will go elsewhere only if cut off from IVF in Vancouver.

In Vitro Fertilization with Donor Sperm

In some cases, medically infertile women who wish to undergo IVF require the use of donor sperm, either because they are single or because their partner is also medically infertile. Many people said that most IVF programs insist that a woman be in a heterosexual relationship before being accepted. Single women found a way around this requirement by bringing a male friend in at least two instances.

One single woman knew she was medically infertile and had pursued infertility treatment in her first marriage. After her marriage ended, she

decided to try IVF. She told the program she was married but her husband was out of town. The woman is attempting to clarify her legal status as sole guardian.

Gamete Intrafallopian Transfer (GIFT)

Couples told the Commission about their experiences with GIFT (fertilization of the ova in the fallopian tubes) in Vancouver, Winnipeg, Ontario, and the United States. One couple, whose child's conception through GIFT was widely publicized, said they were told that this led to some 5 000 inquiries about fertility treatment at their clinic.

Some couples told the Commission they preferred GIFT because it is less difficult than IVF, though one couple found GIFT more invasive because surgery is required for the transfer of ova and sperm to the fallopian tubes. Many couples also cited "higher success rates" as the reason for their preference for GIFT. Some had been told GIFT has a 25 percent success rate; one woman said she was told, by a clinic in the United States, that the success rate is 50 percent. Another couple was told by the American clinic they attended that with a proper infertility work-up, 80 percent of couples will get pregnant through GIFT. This couple did not have a baby.

Ova Donation

One couple tried GIFT using donated ova after discovering that the woman had a genetic disorder. After spending a year on a waiting list in Canada for a donor egg program that had not yet started operation, the couple was told of an American program that had a 35 percent success rate, had no waiting list, and would cost \$4 000 — the same as the Canadian program. Women undergoing IVF were the source of the donated ova. The couple was not successful in this program; they eventually conceived using GIFT and ova donated by the woman's sister. Very few people know of the ova donation, and the couple is not sure if they will tell their child about his or her biological origin.

Prenatal Diagnosis

Several couples spoke with the Commission about their experiences with various methods of prenatal diagnosis, including amniocentesis and late terminations (therapeutic abortion after 20 weeks' gestation), chorionic

villus sampling (CVS), and genetic counselling.

One couple at risk of having a child with a genetic disorder said that the availability of early diagnosis through CVS meant that more couples with a history of genetic disease will attempt a pregnancy. This woman did not feel there was pressure to terminate a pregnancy should the fetus be found to be affected. She felt that the availability of prenatal diagnosis and abortion does not marginalize disabled people, pointing to increasing

societal acceptance and integration of people with disabilities, in contrast

to the situation 20 years ago.

Another woman said she was "pressured" by her physician to have amniocentesis at 17 weeks. Two weeks later, she was informed that the baby had Turner's syndrome. She wished to consider continuing the pregnancy, but her husband did not, and they decided on a termination. The woman felt that the geneticist gave them the diagnosis but did not provide the scientific information or the support she and her husband needed. She stressed the need for such services, pointing out that most couples have only a short time in which to make decisions. She said how difficult and upsetting it was to experience labour and delivery under these circumstances and to arrange for religious/funeral ceremonies.

Both couples who had terminations after a diagnosis of an affected fetus was made said hospitals should provide support and counselling for families having late abortions. In particular, they said that the guilt can be very difficult to deal with. They said that the medical profession and society must acknowledge that late terminations are taking place. Both women conceived again within a year; one woman said she was obsessed

with having another child.

Participants had a number of suggestions relating to prenatal diagnosis, most related to support and counselling, especially for couples dealing with late termination of pregnancy. They included training staff, especially doctors, to cope with grief and death; providing counselling prior to prenatal testing to prepare a couple for a range of possible diagnoses, not just Down syndrome; ensuring that medical facilities performing late terminations provide support for families; making CVS available, especially for older couples, to avoid late terminations; researching the effect of late termination on the women involved; and providing follow-up support, such as counselling, for couples choosing late termination.

Preconception Arrangements

The Commission heard details of five experiences with preconception (surrogacy) arrangements: one was a family arrangement between sisters, one woman had been a surrogate mother, and three infertile couples had tried to have a child through preconception arrangements with U.S.

centres. All were positive about their experiences.

One woman began her efforts to have a child in 1984. After intensive medical treatments, two ectopic pregnancies, drug therapy, and attempts to adopt a child publicly, privately, and internationally, the woman accepted her sister's offer to bear a child for her. She researched and wrote a contract at her doctor's insistence and then sent her husband's frozen sperm to the sister's home in another province. The sister took it to the sperm bank, saying it was her husband's sperm. The insemination was done by the doctor, without the sperm bank knowing the truth. A pregnancy resulted and the woman gave the baby to her sister.

Another woman who had been a surrogate mother responded to a newspaper advertisement placed by an American agency. She said she was motivated by her enjoyment of pregnancy and birth, and she wanted to make a positive contribution to someone who was unable to have a child. The agency gave her a contract to review, and she met with a psychologist before being accepted as a potential surrogate. She was chosen by a Canadian couple but gave birth in the United States because of concern about Canadian laws. She says she has no regrets, and that giving up a baby was not like adoption, because this child is with his biological father. She has spoken publicly to encourage the legalization of preconception arrangements in Canada and to dispel the myths about women who choose this arrangement.

One couple turned to preconception arrangements because the wife has a heart condition and her doctors had recommended she avoid pregnancy. They decided to use IVF. Her egg would be fertilized with his sperm and the embryo transferred to a surrogate mother. They have not yet succeeded, and, if further attempts fail, they will review options such as another attempt or adoption. They believe the media are debating IVF

but condemning preconception arrangements outright.

Another couple recommends such arrangements only as a last resort. This couple had pursued a variety of technologies and finally had a daughter through a preconception arrangement. They estimate that they have spent \$100 000 in their attempts to have a child, and they are trying to have a second.

Those who had participated in preconception arrangements had a number of suggestions for the Commission, ranging from limiting such arrangements to couples who could not have a child any other way, to permitting non-commercial arrangements, to legislation to protect both the surrogate and the contracting couple.

What We Heard — Issues

Motivations and Pressure

Many of the women who discussed their motivations said they were more willing to pursue fertility procedures than were their partners, or that their partners were ready to give up before they were. Many were angered by the views expressed by some women's groups that women were being pressured or manipulated to use risky reproductive technologies.

The few couples who decided not to utilize any of the technologies said

The few couples who decided not to utilize any of the technologies said they did so because of the cost relative to success rates, or because they felt the health risks of IVF in particular were too serious. One couple decided to use the \$5 000 it would have cost to attempt IVF to try to adopt.

Many couples said the pressure to have children is internal. Some said the desire for a child was a natural biological urge or an expression of

a couple's love. A few women said they wanted the experience of pregnancy and birth; others said the desire to be a parent was the driving force. People had assumed they would conceive "naturally" and easily and were

devastated by infertility.

Without children, participants said, "You have no future; nobody would know you were here"; "you have lost your place in the chain of life"; "your life is sterile in every sense of the word"; "your faith in everything is destroyed, including your own ability to take charge of your life." Some women said infertility damaged their sense of worth: "my body was letting me down." One woman believed others saw her as a freak, while others felt guilty for being infertile. One woman said she would have kept on trying to get pregnant even if it ended her marriage or caused a nervous breakdown.

A number of women said they became completely focussed on trying to have a child; they became depressed and despairing with each failure. In the words of one woman, "no risk seemed too great when the priority was to have a child." Women said they would use the new reproductive

technologies as long as they could continue to do so.

Some said they must try everything possible to have a child in order to look back without regret. Many people said that whatever the odds, even 1 percent, they believed the technology would be successful for them. "Children are our legacy," one participant said, "and when you go through this process ... what you are buying is hope." One couple said that they had been caught up in the excitement of the technologies, while another woman said the focus shifted from having a child to becoming pregnant.

Participants said external pressures tend to come most often from family, particularly from potential grandparents, or from a desire to provide a sibling for an only child. Societal pressures were also noted. One person said, "upbringing and mass media make you believe to be happy includes having children or that a family is necessary to feel like a fully functioning person."

Causes of Infertility

Couples suffering from infertility described their experience in different as a condition, a medical problem, a physical impairment, a

disability, a disorder, a disease, or an illness.

Participants identified a wide range of causes of their infertility, ranging from genetic disorders, to physical problems, to factors such as sexually transmitted diseases. A large number of people said that the cause of their infertility was idiopathic, or unexplained. A few of the more commonly attributed causes are discussed below.

Idiopathic

More than 60 couples said the cause of their infertility was unknown. Many women had blocked fallopian tubes or had lost a tube as the result of an ectopic pregnancy, but the cause of the blockage or ectopic pregnancy could not be identified.

Some people speculated on the role that environmental pollutants, exposure to radioactive materials, extensive use of video display terminals, stress, and oral contraceptives might play in their infertility. A few women quit their jobs or took extended leave because they thought their stress level might be reducing their chances of success with the technologies.

Those suffering from idiopathic infertility said the lack of explanation is extremely difficult to cope with. Without a diagnosis, treatment is by trial and error. They said it was more difficult to stop trying to conceive, and the lack of a diagnosis can add to a couple's feelings of guilt and makes the problem more difficult to explain to other people.

Male Factor Infertility

There were at least 15 cases in which male sub-fertility played a role. Participants said that the man's problem was frequently not discovered until the woman had undergone a number of investigative procedures. They said this was because infertility is first dealt with by a gynaecologist, and the focus is therefore on the woman, and because some men are reluctant to go for fertility testing. One man said he would have a sperm test only if there were nothing wrong with his wife, while another commented that many people confuse male infertility with being impotent.

One woman said she felt defensive in pushing her husband to be tested. Her husband was not given the test until their preliminary interview for IVF. The man had surgery, and the woman conceived naturally seven months later.

Other Causes

Some women identified endometriosis as a factor in their infertility. Some said it was the cause, particularly if their tubes were blocked. Others knew they had it but also knew that women with endometriosis could become pregnant and deliver a child and therefore said their infertility was unexplained. To treat the endometriosis, some women took drugs, while others had surgery, in some cases to open blocked tubes. Ten of the 12 with endometriosis eventually tried IVF; two women who tried GIFT later conceived naturally.

An intrauterine contraceptive device (IUD) was mentioned as being viewed by the woman as a possible cause of infertility in 12 private sessions. Two women said the IUD resulted in pelvic inflammatory disease (PID). One physician who participated in the private sessions said he believes an IUD should not be used by a woman who still wants children.

In discussing the causes of their infertility, participants had a number of suggestions arising from their experiences. Several felt the male partner should be more involved in the process, and many women mentioned the "cattle herd" nature of blood tests, vaginal ultrasound, and injections. As well, several felt that infertile women undergoing these procedures should be separated in waiting areas and in hospitals from pregnant women or

women having abortions. They also suggested that service providers should avoid using a medical disease model of infertility, in which the rest of the person does not exist.

Information and Decision Making

Many people stressed the need to have information available early enough to assist decision making. Many people said they reached an IVF clinic ready to try the procedure, although they had yet to be given details. Some people also said they were streamed into programs before knowing all the treatment options, choices were made for them, and they were not empowered to make their own decisions.

Infertile people wanted more information about infertility, treatment options, risks, availability, and success rates. In particular, couples want to know the success rates of each clinic — which procedures were used for people with their problem, and how many babies resulted.

Some people wanted to review information materials in advance and then have an opportunity for discussion and questions. There were also concerns about the accuracy of the data that IVF programs use; several people said they did not tell the clinic the outcome of their pregnancy, so how could the success rate be calculated?

Participants had a number of suggestions in this area. These included the following:

- Create a national infertility organization and a general information clearing house on fertility-related material.
- Establish a cross-Canada data base to identify centres offering infertility treatments, especially treatments other than IVF.
- Bring medical bodies, governments, and individuals together to create guidelines on how to inform patients of risks, benefits, and success rates.
- Create an information kit for infertile couples with facts, treatments, counselling services, and adoption options. Place fact sheets in doctors' offices.
- Create an impartial information agency with unbiased information on treatments and details on drugs. In particular, participants wanted statistics presented so that they are understandable and include information on the worst possible outcome, what is likely, statistics on take-home baby rates, risk of ectopic pregnancies, drug effects, and multiple pregnancies.
- Provide statistics on the success rate of cryopreserving embryos, including survival-of-thaw rates.
- Publish standardized IVF outcome details for people to assess their options.

Counselling

Many people stressed that counselling services and referrals to support groups should be available to infertile people; this has not always been the case, even when such support is requested. They also stressed that counselling should be unbiased and adapted to individual needs, should involve men, and should be provided by a range of professionals, including social workers, nurses, and psychologists. Some felt that clinics offering fertility treatments should be required by legislation to follow each medical procedure with an opportunity to talk about feelings and evaluate the next steps. Many people felt such counselling should be covered by health care insurance.

Support groups were especially praised for allowing infertile people to meet others living with infertility. Many people said simply being able to attend the group was helpful.

Many people stressed the need to make counselling and support available at all stages in the process. Currently, counselling seems to take place only after couples have entered an infertility treatment program. Participants said they would prefer being referred to such counselling from the time infertility is first diagnosed, often by a general practitioner. They said this would help couples examine a range of options and assist with decision making. The need for counselling or support after a failed procedure was also stressed.

Many people were particularly concerned about the stress associated with IVF, because of its high stakes and low odds for success. Some said they did not receive counselling, though they were told it was mandatory or included in the program. They said mental health services and support lag behind medical intervention.

Public Awareness and Education

Many infertile people said it is also important to educate the general public about infertility. They said that people who are fertile can be insensitive with prying questions, comments that infertility is "God's will" or "meant to be," and advice to "get on with life" or "take a vacation." Participants also said there is a public perception that infertile people have caused their own infertility through promiscuity, sexually transmitted diseases, etc.

They felt that both the education system and the media have important roles to play in educating the public about infertility prevention, types of infertility, and infertility services and treatments. Other education efforts should focus on encouraging people to seek help early if they are infertile.

Access

Most people who discussed access to new reproductive technologies felt they should be available to all who medically need them, so that people can choose whether or not to use them. Many said the technologies are a necessary medical treatment to conceive a child — some said reproduction is a right.

There was less agreement about access to the technologies for the "socially infertile," such as single women. Some felt that a child needs two parents or that single parenthood is too difficult. The other area of disagreement was whether technologies should be available to all infertile people or only to those who are identified as having a reasonable chance of success. There were also questions about whether those with idiopathic infertility should be considered medically infertile.

Cost was seen as a barrier to access. Most people felt that those with financial resources have unlimited access to services to assist conception and focussed on the lack of government funding for many procedures. In Ontario, where IVF is covered under the provincial health care plan, concerns about access centred on increasing services. There was concern that current waiting lists may reduce people's chances of success because of the role of age in infertility.

Given that there are long waiting lists for many infertility treatments, discussions about access inevitably turned to discussions of priority setting. There was a range of views as to who should have priority in gaining access to treatments. Some people felt that priority should be given to those who are childless, to those who have been trying for a long time, or to older women. Others felt that low priority should be given to those who are infertile because of an earlier sterilization, to single women, or to those who do not have a statistically high probability of success.

Costs

Discussion of costs tended to centre on whether IVF should be covered by provincial health plans, with most people supporting its inclusion. Others said that if it is not to be included, there should be programs to help those who cannot afford the procedure otherwise. Infertility was said to be "a physical dysfunction entitled to paid medical treatment" because "the infertile are reproductively handicapped in the same way the blind are visually handicapped." There were examples cited from Ontario and British Columbia of reproductive surgery being classed as cosmetic or elective and therefore not funded.

Many people perceived a number of what they called "double standards" in the treatment of new reproductive technologies in the health care system. Some pointed out that abortion, contraceptives, and sterilizations were funded, but efforts to create life were not — they said that procreation should be a funding priority. Although expectations of success for the technologies are low, many other treatments, such as

cancer treatment or organ transplants, also have low success rates but are covered. Finally, some pointed out that illness resulting from smoking, alcohol abuse, and drug abuse are covered, but not treatments for infertility, the causes of which are, in most cases, beyond people's control.

Some suggested that a user fee for procedures such as IVF would be appropriate, saying, "if you can't afford a user fee, you can't afford to raise a child." Others wanted only first attempts fully funded, as it would enable all infertile people to have a chance. A few people suggested travel and accommodation costs be paid when people must travel for fertility procedures; others did not think this was appropriate. Some Ontario residents said they had to pay a \$500 fee at publicly funded clinics in the province; others, who came to Ontario from out-of-province, said they received charitable tax receipts for part of their expenses to help offset the costs.

Drug Costs

Drug costs can be one of the most expensive parts of infertility treatment, as they are generally not covered under provincial health plans. Many couples' drug costs were fully or partly paid by insurance companies through a drug plan. Many couples donated surplus drugs to their clinic, for couples who did not have such a plan.

Even those couples who belong to a drug plan, however, reported problems. One woman, whose Pergonal® costs averaged \$1 000 per month, said she described her illness as ovulation dysfunction to ensure payment. Another woman found that her insurance company paid for her first claim but then decided its plan would no longer cover fertility drugs. A third woman, whose Pergonal® cost \$1 800 for two months, said that after making her second claim, the insurance company threatened to cancel coverage of the entire office if another bill were sent in. One woman had her fertility drugs covered through eight IVF attempts but was refused for her ninth try. Pergonal® was said to be more expensive in Canada than in other countries. Some told the Commission that they are having friends smuggle it in.

Multiple Pregnancies and Birth Defects

Twenty-three women who participated in the private sessions had experienced multiple pregnancies. No one had live delivery of more than twins, but several had been pregnant with triplets and one with quadruplets. A number of people said they would be quite pleased to have twins so that they would not have to go through IVF again for a second child. For one couple, news of triplets was pleasing to the woman, but it worried and angered her husband. When people said they would be "ecstatic about one baby or five babies," there seemed to be an assumption that all would be healthy babies. Virtually no one said they were told of the risks associated with a multiple pregnancy. No one mentioned selective reduction.

Twelve women had delivered twins as a result of IVF; six of them had been treated at the same clinic. A woman who conceived twins on her first attempt at IVF had been given no information about the likelihood of multiple births. Of the 13 women with her in the IVF program, she said that three had children, and two of these had twins. Another woman said she had been told of the possibility of multiple birth but was not given any statistics, information, or counselling.

Another couple who conceived twins on their first attempt at IVF had one twin miscarry; the other was born prematurely and is developmentally delayed. The couple said they do not believe the handicap was caused by any of the drugs or procedures used during IVF. They think that their daughter had trouble recovering from the premature birth in the overcrowded and understaffed neonatal unit at their hospital. They would try IVF again, but it is too difficult to get care for their handicapped child, and so they are using only fertility drugs now.

Participants felt that IVF programs should discuss both the likelihood and the risks of multiple pregnancies. They felt that couples should always be consulted on how many embryos they want transferred.

Medical Profession

Most people were very positive about the care they received from their physicians, although a few said they had bad experiences.

Most couples had tried to conceive for many months, or even years, before consulting their family practitioners. Some people, especially those who were fairly young, felt that their concerns had been dismissed with advice to relax, take a vacation, or forget about having children. The more usual response was a referral to a gynaecologist. This meant that the focus of testing and treatment was on the woman. Sometimes the advice or treatment from physicians was inappropriate; one woman was prescribed Clomid[®] on an ongoing basis with no ovulation monitoring or check of her tubes.

Some people encountered resistance from their physicians when they asked questions or wanted to participate in decisions about their treatment. In general, infertile people seemed to feel better treated by infertility specialists and IVF practitioners.

According to one woman, Ontario's Laboratory and Specimen Collection Centre Licensing Act permits physicians to have laboratory technicians in their offices to conduct tests. She felt this was an option the Commission should support. She said accuracy improves, since the same technician interprets the results each time; the patient feels less stress, as he or she does not have to go to another location for the tests; and the physician receives the results quickly and can decide if another test is necessary. The potential conflict of interest did not appear to occur to her.

Participants felt that there was a need for more specialists on women's reproductive health and suggested that physicians receive more education

and training in this area. Some felt that general practitioners need to be better informed on infertility, to know which treatments are available and where, and to refer people to specialists. Many people suggested that infertility and endocrinology be recognized as specialties, and some felt that only infertility specialists should treat infertility, and not obstetricians or general practitioners.

Similarly, many people felt that greater training is needed in the area of male infertility and wanted work in this area done by urologists with specialized training in male infertility.

9

Research

Many people wanted research to be done to find the causes of infertility (particularly endometriosis) and cures and to perfect treatment procedures and outcomes. There were also some more specific suggestions, including a long-term study of the women who have taken fertility drugs and their children and studies of both emotional and medical issues related to infertility. Other areas of suggested research included prevention of infertility, male infertility, contraceptive drugs and their relationship to infertility, idiopathic infertility, and the causes of ectopic pregnancies.

One couple suggested the Commission look at whether those who participate in research on new reproductive technologies are well informed and well treated. This couple believed that those who design, fund, and carry out research studies are never called to account for their treatment of the people in the study. They thought that there is a general assumption that scientific research is "good," but there is little general awareness that there may be some "sloppiness" and "career-related motivation on the part of researchers."

Others suggested that there should be more stringent guidelines on

research and that objectives should be clearly defined.

Many people were particularly concerned about the disposition of surplus gametes and embryos and their use in research. Research on ova or embryos made some people extremely uncomfortable. Others wanted to be sure their decision concerning the disposition of embryos would be respected. While some people were aware of policies in this area at their

treatment facility, others were not.

People had differing views on what should happen to fertilized ova or embryos. For some, the fertilized egg is a "baby or a person" and they could not imagine not having the eggs transferred back into their uterus. One woman said she could never give them away, as they were part of her. Another said she would probably have her eggs destroyed to avoid seeing a child that looked like hers or risking her son falling in love with a sibling. Another couple said they would donate their eggs because a fertilized ovum "is not a person."

Clinics were said to have a variety of methods for dealing with cryopreserved embryos. Two people said those who have embryos cryopreserved

must sign a consent form saying that, if they did not use them within a year, the embryos became the property of the clinic to use in research (but not for donation); one woman altered this form to specify which experiments she would permit. Other clinics' consent forms included a proviso that if both members of the couple died, the embryos would not be used in research but would belong to the clinic. Another couple was told that if they separated, their cryopreserved embryos would be destroyed. Where embryos are not cryopreserved, clinics have different methods of dealing with fertilized ova. One woman said she was told the clinic was legally obliged to transfer all fertilized eggs and that her body would "kill off" what it could not handle. Another couple, with eight fertilized embryos, had four transferred to the uterus and four placed in front of the cervix so they would not implant.

This was an area in which people had a great deal of concern, but not much knowledge. In particular, people feared "black markets" in embryos or gametes. Many people felt that clinics should give couples more information about the various options for using surplus gametes or embryos. There were also suggestions about better record keeping, regulations for the use and storage of surplus gametes and embryos, and increased accountability by clinics. Some felt, however, that it was best to leave the morality of disposition decisions to those involved, as is done with abortion, genetic issues, and sex selection for hereditary diseases.

Adoption

Many infertile couples say they have considered adoption as well as new reproductive technologies. Many say they chose to pursue new reproductive technologies because there are so few babies available to adopt. Others pursue technologies and adoption concurrently, particularly if age is a factor. In other cases, adoption was the second option when attempts to conceive with new reproductive technologies were unsuccessful. Those who addressed the issue had attempted public, private, and international adoption and spoke of the frustrating and confusing nature of the experience.

Some people said doctors presented the options of adoption and IVF when telling people they were infertile; others said the doctors simply referred them to an IVF clinic.

Several women said their partners would not consider adoption or did not want a child who was not biologically related to them. Several women also said they wanted a genetically linked child. A few women said adoption was not an option because they wanted to experience pregnancy and birth. One woman said she had reservations about adoption because she feared that women who give up their babies may not have taken care of themselves.

Many people said there were few babies available for adoption. Also, some people believe social services ministries encourage a woman to keep

a child "no matter if she is on welfare or very poor," rather than give the baby up for adoption. Some people felt that women with unwanted pregnancies should be encouraged to have the babies and place them for adoption. Others, however, were concerned that women who want an abortion (especially young, poor, or refugee women, or women leaving unworkable relationships) should not be compelled to supply babies for adoption by married couples of economic means.

Public Adoption

Many couples had difficulties with the public adoption process. One couple, who had adopted a child, was unwilling to return to what they called a frustrating and demeaning adoption process. When they wanted a second child, they turned to GIFT instead.

Age criteria for adoption are also a barrier. Many couples are not diagnosed as infertile until they are in their early 30s. Since couples can wait up to eight years for a public adoption, by the time they reach the top of the waiting list they are often past the cut-off age (usually 35). One woman said that when a public adoption office opened in British Columbia, 35 of 300 applicants were accepted, and the others were told to reapply in eight years.

Other criteria were also cited as barriers. In some areas, public adoption agencies will not even put people on a waiting list until they have finished with infertility treatment. In other areas, guidelines prevent couples from pursuing both private and public adoption at the same time.

Guidelines for public adoption regarding religion or race also can create special difficulties for minority couples. For example, several Jewish couples said it is difficult for them to adopt, since few birth mothers choose the Jewish religion for their babies. A Chinese couple said there are no available Chinese babies in Canada and is planning to move to Hong Kong to adopt.

The age of children available for adoption can also be problematic. Most people prefer newborns, though few are available. One couple said they were told by the Children's Aid Society they had no chance of adopting a newborn, and they would probably be offered a two- to three-year-old child who had suffered physical/sexual abuse or was born of an addicted parent.

Some couples are willing to adopt mixed-race children; one couple, who waited about a year, said it is "easy" to adopt if you accept a mixed-race child with no background information on the father. Another couple waited less than two years to adopt a mixed-race child, but that was 10 years ago, and theirs is a mixed-race marriage. A third couple adopted a mixed-race girl and then recently adopted twin girls from the same community.

Private Adoption

Most couples who adopt seem to find the babies through the private adoption route. The process of private adoption was described as follows: the couple contacts an agency, pays for an interview and home study, and finds a baby by marketing themselves to doctors and birth mothers, and the agency does the legal paperwork. It is often costly, and many couples had experiences in which the birth mother changed her mind and kept the baby after all. Many people found there were barriers to interprovincial adoption.

Many called the process expensive and depressing. Some couples concluded that only those with money will get a child, since it can cost up to \$10 000 to find and adopt privately. Another woman speculated that no birth mother would choose them — a working class couple in a rental apartment — when the mother could choose professionals with their own home.

International Adoption

Many couples looked into the prospects of international adoption; some concluded that it was too costly or too risky. One woman said international adoption costs \$12 000 to \$15 000. Many people identified problems with regulations both in Canada and in the country of adoption. One woman who went to Romania to try to adopt one or two children had problems convincing her province to authorize the Canadian Embassy to issue a passport for the children.

Many people had suggestions to make the process of adoption easier, such as changing provincial laws that currently make barriers to interprovincial adoption greater than barriers to international adoption. They also wanted adoptive parents to enjoy the same rights as natural birth parents. For instance, some people pointed to "highly discriminatory" unemployment insurance rules that give 25 weeks of leave to birth mothers and only 10 to adoptive parents, or to unfair tax rules that do not give adoptive parents the same tax benefits as birth parents.

Leave from Jobs for Infertility Treatment

Many women said that combining infertility treatments with a job was not easy. Some had understanding employers and took sick leave or vacation time, but some felt there was a loss of privacy in explaining their situation. Some women quit their jobs or took extended leave, hoping this would increase their chances of conception with new reproductive technologies.

One woman decided to speak about her experiences after her school board denied her use of sick leave for IVF, saying that infertility is not an illness. Although a separate case established that women are entitled to use sick leave for infertility treatment, she said the board is continuing its discrimination by refusing to rehire her.

Conclusion

A diverse group of people shared their experiences with Commissioners at these "armchair" sessions. Commissioners felt they had learned from the often eloquent descriptions of the decision making of a very diverse group of Canadians. Some of the insights of participants could not easily have been obtained in any other way. Their voices, and their stories, have added immeasurably to the work of the Royal Commission on New Reproductive Technologies.



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Mandate

(approved by Her Excellency the Governor General on the 25th day of October, 1989)

The Committee of the Privy Council, on the recommendation of the Prime Minister, advise that a Commission do issue under Part I of the Inquiries Act and under the Great Seal of Canada appointing The Royal Commission on New Reproductive Technologies to inquire into and report on current and potential medical and scientific developments related to new reproductive technologies, considering in particular their social, ethical, health, research, legal and economic implications and the public interest, recommending what policies and safeguards should be applied, and examining in particular,

- (a) implications of new reproductive technologies for women's reproductive health and well-being;
- (b) the causes, treatment and prevention of male and female infertility;
- (c) reversals of sterilization procedures, artificial insemination, in vitro fertilization, embryo transfers, prenatal screening and diagnostic techniques, genetic manipulation and therapeutic interventions to correct genetic anomalies, sex selection techniques, embryo experimentation and fetal tissue transplants;
- social and legal arrangements, such as surrogate childbearing, judicial interventions during gestation and birth, and "ownership" of ova, sperm, embryos and fetal tissue;
- (e) the status and rights of people using or contributing to reproductive services, such as access to procedures, "rights" to parenthood, informed consent, status of gamete donors and confidentiality, and the impact of these services on all concerned parties, particularly the children; and
- (f) the economic ramifications of these technologies, such as the commercial marketing of ova, sperm and embryos, the application of patent law, and the funding of research and procedures including infertility treatment.

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